4.15 PUBLIC SERVICES, RECREATION, AND UTILITIES

This section evaluates the potential public services, recreation, and utilities impacts of the proposed Plan. Impacts of the proposed Plan on the San Diego region's water supply and water infrastructure are discussed in Section 4.18 "Water Supply." Impacts of the proposed Plan related to wildfire are discussed in Section 4.19 "Wildfire"; this section only addresses environmental impacts related to fire protection services facilities.

4.15.1 Existing Conditions

This section describes the existing conditions associated with public services, which include fire protection, police protection, schools, libraries, and recreational facilities. It also describes the existing conditions associated with utilities, which include wastewater collection and treatment facilities, stormwater drainage facilities, telecommunications services, electricity and natural gas facilities, and solid waste disposal and recycling facilities.

PUBLIC SERVICES

Fire Protection

Structural and wildfire protection in the San Diego region is the responsibility of fire protection agencies at the federal, state, county, and city levels. Eighteen cities in the San Diego region have a fire department that is responsible for fire protection and prevention within their respective city limits. Fourteen Fire Protection Districts (FPDs), five county Service Areas, and the California Department of Forestry and Fire Protection (CAL FIRE) provide fire and emergency services to unincorporated San Diego County. Volunteer fire protection companies supported by the San Diego County Fire Authority provide emergency services for six areas in the unincorporated county where no fire protection agency is established (see Table 4.15-1 and Table 4.15-2).

CAL FIRE is the principal contractor for fire protection services in San Diego County, and is responsible for wildfire protection of State Responsibility Areas within the county, which comprise over 50% of the unincorporated county's total land area (see Figure 4.19-1 in Section 4.19, "Wildfire"). CAL FIRE operates 18 stations within the county, including one air attack base in Ramona. CAL FIRE also operates an emergency response air program with both aircraft and helicopters, as needed (CAL FIRE 2019). CAL FIRE has established a resource management program to help protect California's natural resources and wildlands. Prevention programs are also run by CAL FIRE, such as vegetation management, risk analysis, and public education (CAL FIRE 2024).

The US Forest Service (USFS) is responsible for fire protection and prevention on federal lands (Federal Responsibility Areas) and private lands within the Cleveland National Forest. There are 12 USFS fire stations in San Diego County. The Department of Defense provides fire protection on military installations but may request assistance from other agencies at the federal, state, or local levels if needed. Tribal governments provide their own fire protection but also may provide mutual air fire services to surrounding areas. Officers with the Harbor Police Department of the San Diego Unified Port District are cross-trained as marine firefighters. Their jurisdiction includes the San Diego Bay, San Diego International Airport, and the tidelands within the cities of San Diego, Chula Vista, National City, Imperial Beach, and Coronado (Hoffman 2018).

Automatic and mutual aid agreements exist between many of the aforementioned agencies to provide necessary support for emergencies. Table 4.15-1 identifies agencies responsible for fire protection in the San Diego region's cities. Table 4.15-2 identifies agencies responsible for providing fire protection in the unincorporated areas of San Diego County. A small portion of the unincorporated county is not served by any FPD. Rather, these areas rely upon neighboring FPDs or CAL FIRE to respond to fires and emergencies. The agency that responds to fires and emergencies in areas not served by any FPD is decided on a case-by-case basis (County of San Diego 2011).

Table 4.15-1 Fire Service Providers in the San Diego Region

City	Fire Service Provider	Number of Stations	Dispatch
City of Carlsbad	Carlsbad Fire Department	6	North County JPA
City of Chula Vista	Chula Vista Fire Department	10	City of San Diego
City of Coronado	Coronado Department	2	Heartland Dispatch
City of Del Mar	Del Mar Fire Department	1	North County JPA
City of El Cajon	El Cajon Fire Department	4	Heartland Dispatch
City of Encinitas	Encinitas Fire Department	6	North County JPA
City of Escondido	Escondido Fire Department	7	City of Escondido
City of Imperial Beach	Imperial Beach Fire Department	1	Heartland Dispatch
City of La Mesa	La Mesa Fire Department	3	Heartland Dispatch
City of Lemon Grove	Lemon Grove Fire Department	1	Heartland Dispatch
City of National City	National City Fire Department	3	Heartland Dispatch
City of Oceanside	Oceanside Fire Department	8	North County JPA
City of Poway	Poway Fire Department	3	City of San Diego
City of San Diego	San Diego Fire-Rescue Department	51	City of San Diego
City of San Marcos	San Marcos Fire Department	4	North County JPA
City of Santee	Santee Fire Department	2	Heartland Dispatch
City of Solana Beach	Solana Beach Fire Department	1	North County IPA
City of Vista	Vista Fire Department	6	North County JPA

Sources: City of Carlsbad 2024, City of Chula Vista 2024, City of Del Mar 2024, City of Encinitas 2024, City of Escondido 2024, City of Imperial Beach 2024, City of National City 2024, City of Oceanside 2024, City of Poway 2024, City of San Diego 2024a, Google Maps 2025, Heartland Fire and Rescue 2024.

Table 4.15-2 Fire Service Providers in Unincorporated and Federal Lands in the San Diego Region

Agency	Governance	Fire Service Provider	Number of Stations	Dispatch
Alpine Fire Protection District	Independent	District	1	Heartland JPA
Bonita-Sunnyside Fire Protection District	Independent	District	1	Heartland JPA
Deer Springs Fire Protection District	Independent	District	3	CAL FIRE
Julian-Cuyamaca Fire Protection District	Independent	District	2	CAL FIRE
Lakeside Fire Protection District	Independent	District	4	Heartland JPA
Lower Sweetwater Fire Protection District	Independent	National City	2	Heartland JPA
North County Fire Protection District	Independent	District	5	North County JPA
Pine Valley Fire Protection District	Independent	District/ CAL FIRE	1	CAL FIRE
Rancho Santa Fe Fire Protection District	Independent	District	6	North County JPA
San Marcos Fire Protection District	Independent	City of San Marcos	3	North County JPA
San Miguel Consolidated Fire Protection District	Independent	District	8	Heartland JPA
Valley Center Fire Protection District	Independent	District/ CAL FIRE	2	CAL FIRE
Visat Fire Protection District	Independent	City of Vista	NA	North County JPA
Mootami MWD	Independent	CAL FIRE	NA	CAL FIRE
Pauma MWD	Independent	CAL FIRE	NA	CAL FIRE
Ramona MWD	Independent	CAL FIRE	NA	CAL FIRE
Rincon del Diablo MWD	Independent	City of Escondido	NA	City of Escondido

Agency	Governance	Fire Service Provider	Number of Stations	Dispatch
Yuima MWD	Independent	CAL FIRE	NA	CAL FIRE
Boulevard	Volunteer	SDCFA	1	CAL FIRE
Sunshine Summit	Volunteer	SDCFA	1	CAL FIRE
Ranchita	Volunteer	SDCFA	1	CAL FIRE
Ocotillo Wells	Volunteer	SDCFA	1	CAL FIRE
Intermountain	Volunteer	SDCFA	1	CAL FIRE
De Luz	Volunteer	SDCFA	1	CAL FIRE
Shelter Valley	Volunteer	SDCFA	1	CAL FIRE
CAL FIRE	State	CAL FIRE	18	CAL FIRE
USFS	Federal	USFS	12	USFS

Notes: SDCFA = San Diego County Fire Authority; CAL FIRE = California Department of Forestry and Fire Protection; JPA = Joint Powers Authority; USFS = U.S. Forest Service.

Sources: County of San Diego 2011; LAFCO 2023; San Miguel Fire District 2025.

The performance of fire protection and emergency services is generally measured with travel or response time standards and service ratios. Travel or response time standards measure the estimated time it will take for responding agency personnel to reach a certain point in their service area from the time of initial call or the time an emergency vehicle begins moving to the emergency location. These standards differ among agencies.

Service ratios are also used to measure the adequacy of service. Service ratio standards typically ensure there are a minimum number of personnel and pieces of equipment to serve a certain population. Water supply and pressure must also be considered when evaluating fire protection services.

Police Protection

The San Diego County Sheriff's Department (SDCSD) is the primary law enforcement body in the San Diego region. SDCSD provides police protection services for the unincorporated areas of the county and the following nine cities: Vista, San Marcos, Santee, Lemon Grove, Imperial Beach, Poway, Encinitas, Del Mar, and Solana Beach. These cities generally provide their own traffic enforcement, while the unincorporated county relies on the California Highway Patrol and SDCSD.

Traffic enforcement, police patrol, and investigative services are provided in the cities of Carlsbad, Chula Vista, Coronado, El Cajon, Escondido, La Mesa, National City, Oceanside, and San Diego by their own city police departments. SDCSD operates several other law enforcement support facilities, including seven detention facilities. These detention facilities provide the services necessary to support a daily average population of more than 5,000 inmates (SDCSD 2024). SDCSD also provides specialized services, such as aerial support, a bomb and arson unit, and a special enforcement detail responsible for highly specialized tactical operations. Forensic services are provided to law enforcement and criminal justice agencies through SDCSD's crime laboratory for all the cities within San Diego County, except for the City of San Diego. Table 4.15-3 shows sworn police protection personnel by jurisdiction in the San Diego region.

Table 4.15-3 Sworn Police Protection Personnel by Jurisdiction in the San Diego Region

Police Protection Providers by Jurisdiction	Number of Sworn Personnel
City of Carlsbad	132
City of Chula Vista	297
City of Coronado	58
City of El Cajon	120
City of Encinitas	61

Police Protection Providers by Jurisdiction	Number of Sworn Personnel
City of Escondido	170
City of Imperial Beach	25.68
City of La Mesa	69
City of Lemon Grove	24
City of National City	89
City of Oceanside	219
City of Poway	51
City of San Diego	1,870
City of San Marcos	82
City of Santee	60
City of Solana Beach	17
City of Vista	96
San Diego County Sheriff's Department (total)	1,060
Harbor Police	140

Source: City of Carlsbad 2025, City of Chula Vista 2025, City of Coronado 2025, City of El Cajon 2025, City of Escondido 2025, City of Imperial Beach 2025, City of La Mesa 2025, City of Oceanside 2025, City of San Diego 2025, SANDAG 2024.

Local police department staffing goals are set based on different metrics depending on the jurisdiction. For example, some police departments, similar to fire-protection services, evaluate police services based on response times (City of San Diego 2024a). Others follow established staffing guidelines set by organizations like the International Association of Chiefs of Police (IACP 2024) or base staffing on a ratio of police officers to citizens. Response times can vary between service providers and between urban and rural areas. Urbanized areas generally see a much faster response time than rural areas. Response times are also measured against the type of emergency. Calls are generally ranked into different priority levels, where the higher priority call receives a faster response time goal. The lowest priority calls are generally for issues such as animal noise disturbance, while the highest priority calls generally involve more serious crimes. Unlike fire protection emergency responses that are dispatched from a central location, police units respond while on patrol.

Schools

The public school system in the San Diego region has approximately 476,844 students enrolled in kindergarten through 12th (K–12) grade (CDE 2024). There are roughly 44 public school districts with about 740 schools throughout the region, staffed with more than 23,206 teachers. In addition to public primary and secondary schools, the number of charter schools at all grade levels is growing in the San Diego region. Higher education is represented by eight community colleges, three public higher education institutions, and several private higher education schools throughout the region (CDE 2025). Table 4.15-4 identifies K–12 public school districts that provide education at the elementary, middle/intermediate, and high school levels, and their enrollment statistics.

Table 4.15-4 2023-2024 Student Enrollment and Staffing by District in the San Diego Region

District	Type	Elementary Schools	Middle/ Intermediate Schools	High Schools	Other Schools	Total Students	Number of Teachers	Number of Students per Teacher
Alpine Union Elementary	Elementary	3	1	—	1	1,539	69	22.3
Bonsall Union Elementary	Elementary	3	1	1	—	2,231	119	18.7
Borrego Springs Unified	Unified	1	1	2	1	2,837	131	21.7
Cajon Valley Union	Elementary	19	7	—	13	17,947	873	20.6

District	Type	Elementary Schools	Middle/ Intermediate Schools	High Schools	Other Schools	Total Students	Number of Teachers	Number of Students per Teacher
Cardiff Elementary	Elementary	2	—	—	—	649	46	14.1
Carlsbad Unified	Elementary	9	3	2	2	10,832	521	20.8
Chula Vista Elementary	Elementary	48	—	—	17	28,964	1,561	18.6
Coronado Unified	Unified	2	1	1	1	2,739	157	17.4
Dehasa Elementary	Elementary	2	—	—	8	11,667	876	13.3
Del Mar Union Elementary	Elementary	9	—	—	—	3,662	246	14.9
Encinitas Union Elementary	Elementary	9	—	—	—	4,444	256	17.4
Escondido Union	Elementary	20	5	7	8	17,061	1,059	16.1
Escondido Union High	High school	—	—	—	1	8,916	472	18.9
Fallbrook Union Elementary	Elementary	6	1	1	3	5,124	249	20.6
Fallbrook Union High	High school	—	—	—	2	2,064	102	20.2
Grossmont Union High	High school	—	—	11	7	21,697	1,040	20.9
Jamul-Dulzura Union Elementary	Elementary	—	1	—	1	801	35	22.9
Julian Union Elementary	Elementary	—	—	—	—	1,949	33	59.1
Julian Union High	High School	22	—	1	1	118	92	1.3
La Mesa – Spring Valley	Elementary	6	1	—	9	11,032	501	22.0
Lakeside Union Elementary	Unified	5	2	-1	1	4,842	263	18.4
Lemon Grove	Elementary	8	—	—	4	3,122	174	17.9
Mountain Empire Union	Unified	4	—	—	12	4,284	249	17.2
National Elementary	Elementary	11	—	—	7	4,569	288	15.9
Oceanside Unified	Unified	14	4	2	7	17,839	934	19.1
Poway Unified	Unified	26	6	6	7	34,935	1,570	22.3
Romana City Unified	Unified	5	1	1	4	5,077	243	20.9
Rancho Santa Fe Elementary	Elementary	1	1	—	—	543	66	8.2
San Diego County Office of Education	County Office of Education (COE)	4	—	—	10	7,464	439	17.0
San Diego Unified	Unified	137	30	27	41	114,330	6,435	17.8
San Diego Union High	High school	—	5	4	1	12,364	563	22.0
San Marcos Unified	Unified	12	3	2	3	19,456	46	423.0
San Pasqual Union Elementary	Elementary	1	—	—	—	527	34	15.5
San Ysidro Elementary	Elementary	4	—	—	3	4,205	185	22.7
Santee Elementary	Elementary	9	—	—	5	6,159	311	19.8
SBC – High Tech High	Statewide benefit charter	2	2	3	—	3,819	133	28.7
Solana Beach Elementary	Elementary	7	—	—	—	2,730	185	14.8
South Bay Union Elementary	Elementary	11	—	—	1	5,595	334	16.8
Spencer Valley Elementary	Elementary	1	—	—	2	3,885	275	14.1
Sweetwater Union High	High school	—	11	13	6	36,686	1,893	19.4

District	Type	Elementary Schools	Middle/ Intermediate Schools	High Schools	Other Schools	Total Students	Number of Teachers	Number of Students per Teacher
Vallecitos Elementary	Elementary	1	—	—	—	190	12	15.8
Valley Center – Pauma Unified	Unified	4	1	1	1	3,711	185	20.1
Vista Unified	Unified	15	4	4	8	21,524	1,191	18.1
Warner Unified	Unified	2	—	1	3	2,528	108	23.4

Source: CDE 2025.

Facility planning for public schools is generally based on student generation rates, which vary by jurisdiction and development type. Historical data and future plans for an area are used to project the number of students that will eventually be a part of the community. The generation rates are compared against the current capacity of individual school facilities that would be affected by the growth.

Libraries

The San Diego County Library operates branches in the cities of Del Mar, El Cajon, Encinitas, Imperial Beach, La Mesa, Lemon Grove, Poway, San Marcos, Santee, Solana Beach, and Vista, as well as in the unincorporated areas of the county and operates two bookmobiles. The cities of Carlsbad, Chula Vista, Coronado, Escondido, National City, Oceanside, and San Diego maintain and operate their own library systems. Table 4.15-5 shows the city and county public library systems in the San Diego region. The libraries of California State University, San Marcos; San Diego State University; and UC San Diego are also open to the public, but community members must pay an annual fee in order to check out library resources. The San Diego County Public Law Library (Law Library) is open to the general public, as well as California legal professionals, and provides legal materials and information. The Law Library is funded through the County of San Diego general fund, in addition to a portion of collected court fees. Some libraries have adopted master plans for their system facilities to assess their needs, while others developed service standards, such as square footage of the facility per resident in a defined service area.

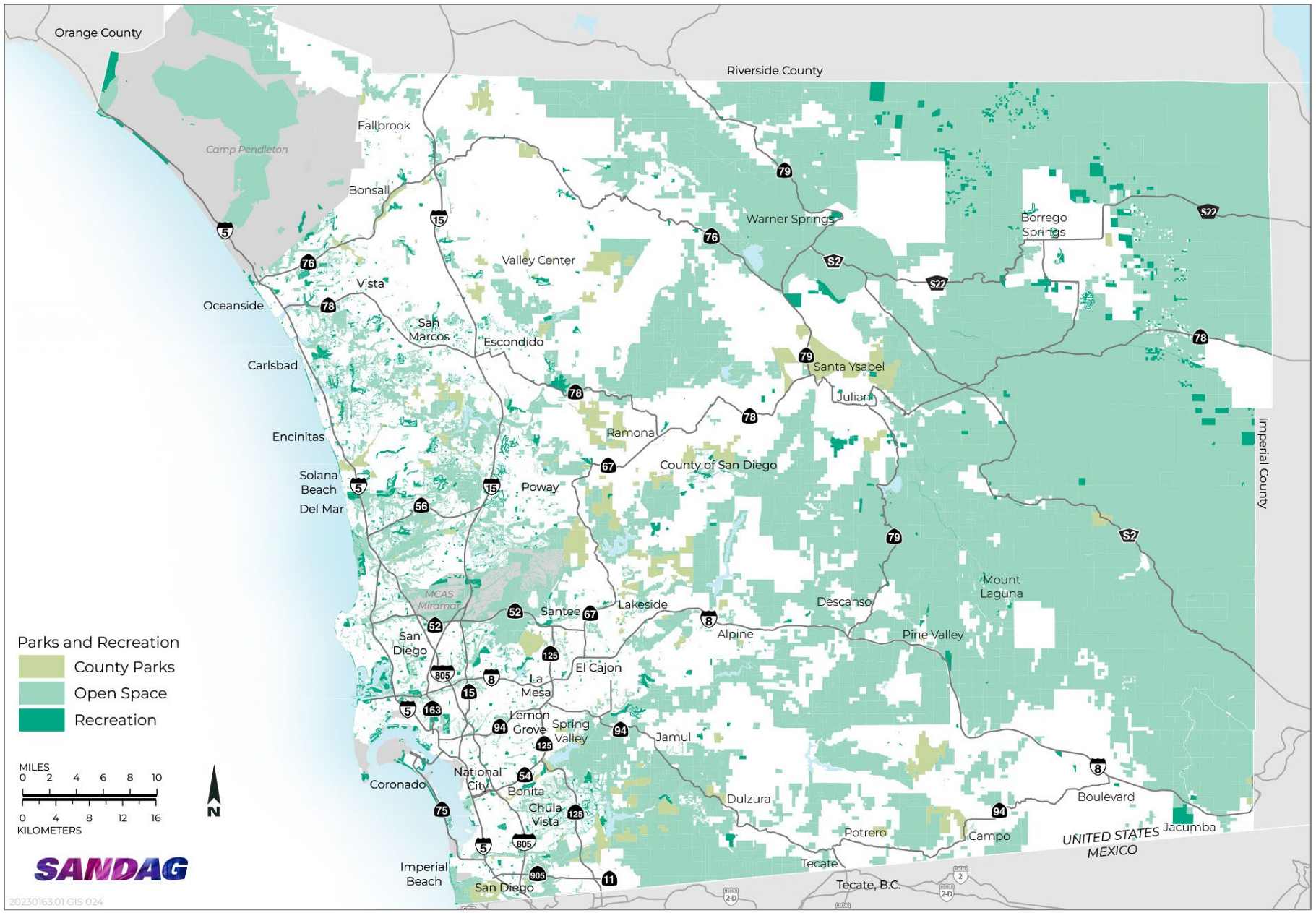
Table 4.15-5 Municipal and County Public Library Systems in the San Diego Region

Library	Total Outlets	Total Visits	Total Circulation	Total Collection Use	Total Programs
Carlsbad City Library	3	426,470	1,259,039	269,328	1,092
Chula Vista Public Library	3	152,313	478,849	207,553	594
Coronado Public Library	1	396,645	446,257	162,739	919
Escondido Public Library	3	234,492	733,968	113,062	728
National City Public Library	1	95,120	220,443	206,852	179
Oceanside Public Library	5	353,308	455,419	168,511	1,611
San Diego County Library	35	2,639,665	10,157,739	1,170,560	10,099
San Diego Public Library	36	4,579,637	7,123,750	2,338,870	13,695

Source: California State Library 2024.

Recreational Facilities

San Diego County has hundreds of designated parks, with uses that include camping parks, preserves, sports parks, beaches, community and teen centers, golf courses/clubhouses, convention centers, marinas, casinos, botanical gardens, landscaped open space, undeveloped natural areas, historic sites, day use parks, racetracks, tourist attractions, and other recreational uses (Figure 4.15-1). As of 2025, these parks and open spaces span more than 1,300,000 acres throughout the San Diego region. Trails and pathways allow for walking, hiking, biking, and horseback riding throughout the region and connect scenic and recreational areas. Trails include the California Coast Trail, which, once completed, will be a 1,200-mile contiguous public right-of-way from the northern to southern border of California to allow for coastal access (California Coastal Conservancy 2019).



Source: Data downloaded from SanGIS in 2025; adapted by Ascent in 2025.

Figure 4.15-1 Open Space Parks and Recreation

Parkland and open space in the San Diego region are owned by federal, state, and local government agencies, as well as tribes, public utilities, private owners, and joint use agreements. Funding for parks comes from their respective owners, as well as tax increment financing, bonds, donations, joint powers authorities, and others. It is also common practice to charge development fees for new development projects to be used to develop parks within that community.

Public parks and recreational facilities can be provided by school districts, community service districts, park and recreation districts, and nonprofit agencies. These facilities include community, senior, and youth centers, sports fields, stadiums, public and private golf courses, visitor centers, amusement parks, fairgrounds, equestrian centers, facilities used for water-oriented recreational purposes, ranches, and private/commercial recreation facilities. Funding for these sites is generally provided by the local jurisdiction.

UTILITIES

Wastewater Collection and Treatment Facilities

The San Diego region is served by over 7,930 miles of pressure and gravity sewer lines, as well as pipes, sewer laterals, and pump stations to move wastewater from its source to a wastewater treatment plant (County of San Diego 2011). The wastewater is generated by a variety of residential, commercial, and industrial actions throughout the region. Table 4.15-6 identifies existing wastewater collection systems in the San Diego region. Wastewater treatment facilities remove solids and contaminants by a variety of methods. The treated wastewater is then released through ocean outfalls, percolation beds, or groundwater recharge. Water reclamation facilities are also used throughout the region and can further treat the water so that it may be used again for agriculture, construction, or other commercial and industrial processes (see Section 4.18). Depending on the process used to treat the biosolids produced during water treatment, the products can be disposed of in designated landfills or municipal solid waste landfills or used to fertilize crops. Table 4.15-7 identifies the capacity of permitted wastewater treatment facilities in the San Diego region.

Most rural areas in San Diego County do not have a sanitary sewer system and must use on site wastewater treatment systems, such as septic tanks. Most commonly, these systems consist of a septic tank connected to a leach line. Septic tanks are discussed further in Section 4.9, "Hazards and Hazardous Materials."

Table 4.15-6 Wastewater Collection Systems in the San Diego Region by Responsible Agency

Responsible Agency	Collection System (CS)	Pressure Sewer (miles)	Gravity Sewer (miles)	Lateral Sewer (miles)
22nd District Agricultural Association	22nd District Agricultural Association CS	0.7	1.6	1.5
Borrego Water District	Borrego Wd-Rams Hill CS	2.8	12.5	1.6
Buena Sanitation District	Buena CS	3.3	93.4	0
CSU San Diego	San Diego State University CS	0	6	4
California Department of Parks and Recreation Winterhaven	San Clemente State Beach CS	0	2.1	0.9
California Department of Parks and Recreation Winterhaven	San Mateo Campground/San Onofre CS	1.2	0.6	0.1
Carlsbad MWD	Carlsbad MWD CS	3.9	282	0
Chula Vista City	City of Chula Vista CS	3.4	511	10
Coronado City	City of Coronado CS	8.4	42.8	0
Del Mar City	City Of Del Mar CS	3.8	29	0
El Cajon City	City of El Cajon CS	0	195	0
Encinitas City	City of Encinitas CS	4.5	124	0

Responsible Agency	Collection System (CS)	Pressure Sewer (miles)	Gravity Sewer (miles)	Lateral Sewer (miles)
Escondido City	HARRF Discharge To San Elijo OO CS	8.3	376.2	0
Fallbrook Public Utility District	Fallbrook PUD CS	4.6	78.6	0
Imperial Beach City	City of Imperial Beach CS	4.6	39.5	0
La Mesa City	City of La Mesa CS	0	155	0
Lemon Grove City	City of Lemon Grove CS	0	68	0
Leucadia Wastewater District	Leucadia Wastewater District CS	16.6	205	0
National City	City of National City CS	1	105	0
Oceanside City	City of Oceanside Collection System, La Salina WWTP	37.7	456.1	0
Olivenhain MWD	4-S Ranch CS	20	65	0
Otay MWD	Otay Water District CS	2.4	81.4	0
Padre Dam MWD	Padre Dam CS	4.6	164.4	0
Poway City	City of Poway CS	3.5	185	74
Rainbow Municipal Water District	Rainbow Municipal Water Dist CS	3	87	0
Ramona MWD	San Vicente Treatment Plant CS	0.45	43	29.5
Ramona MWD	Santa Maria CS	5.3	32.3	9.1
Rancho Santa Fe Community Services District	Rancho Santa Fe San Dist Plant CS	6	35	0
Rancho Santa Fe Community Services District	Santa Fe Valley CS	2	19.7	0
San Diego City	San Diego City CS (Wastewater Collection System)	112.2	2,944.9	0
San Diego County Dept of Public Works	County of San Diego CS	5.3	422	0
San Diego County Dept of Public Works	Julian Water Pollution Facil. CS	0.6	3	0
Solana Beach City	City of Solana Beach CS	2	49	0
UC San Diego	University of California, San Diego CS	0.5	26.5	3
U.S. Marine Corps Base Camp Pendleton	USMC Base, Camp Pendleton CS	39.2	125	79.5
U.S. Marine Corps Recruit Depot	MCRD CS	0	4	2.7
Vallecitos Water District	Meadowlark CS	7.6	260	0
Valley Center MWD	Lower Moosa Canyon Recl Facil CS	5	50	0
Valley Center MWD	Woods Valley CS	2	8	0
Vista City	City of Vista CS	0.3	214.5	0

Note: MWD = Municipal Water District.

Source: SWRCB 2024.

Table 4.15-7 Wastewater Treatment and Water Recycling Facilities in the San Diego Region

Responsible Agency	Facility Name	Planned Capacity 2025 (mgd) PT	Planned Capacity 2025 (mgd) ST	Planned Capacity 2025 (mgd) TT	Planned Capacity 2045 (mgd) PT	Planned Capacity 2045 (mgd) ST	Planned Capacity 2045 (mgd) TT	Effluent Quality for TDS (mg/L)	Disposal Method
Carlsbad, City of	Carlsbad WRF	—	—	7.0	—	—	7.0	1,000	Irrigation/Industrial
Encina Wastewater Authority	Encina WPCF	43.3	43.3	—	43.3	43.3	—	1,031	Outfall-Reuse
Escondido, City of	Hale Avenue RRF/WRF	18.0	18.0	9.0	27.0	27.0	20.0	1,000	Reuse-Outfall
Fairbanks Ranch CSD	Fairbanks Ranch WPCF	0.3	0.3	—	0.3	0.3	0.3	1,100	Percolation
Fallbrook PUD	Fallbrook Plant #1 WRF	2.7	2.7	2.7	2.7	2.7	2.7	850	Reuse-Outfall
Leucadia CWD	Forest R. Gafner WRP	1.0	1.0	1.0	1.0	1.0	1.0	1,000	Reuse-Outfall
Oceanside, City of	La Salina WWTP	5.5	5.5	-	-	-	-	897	Outfall
Oceanside, City of	San Luis Rey WWTP	13.5	13.5	3.0	17.4	17.4	9.0	874	Reuse-Outfall
Olivenhain MWD	4-S Ranch WWTP	2.0	2.0	2.0	2.0	2.0	2.0	1,000	Reuse
Otay WD	East County Advanced Water Purification JPA (will replace the existing Ray Stoyer WRF)	1.3	1.3	1.3	1.3	1.3	1.3	850	Reuse- Outfall
East County Advanced Water Purification Joint Powers Authority (reported by Padre Dam MWD)	East County Advanced Water Purification JPA potential expansion (conceptual)	16.0	16.0	16.0	16.0	16.0	16.0	800 mg/L recycled water, 100 mg/L purified water	Irrigation, Santee Lakes, Indirect Potable Reuse
East County Advanced Water Purification Joint Powers Authority (reported by Padre Dam MWD)	East County Advanced Water Purification JPA (will replace the existing Ray Stoyer WRF)	—	—	—	2.0	2.0	2.0	100	Indirect Potable Reuse
Rainbow MWD	San Luis Rey WWTP	—	1.0	—	—	1.0	—		Reuse-Outfall
Ramona WMD	Santa Maria WRP	—	0.4	0.2	—	0.5	0.4	850	Reuse-Irrigation
Ramona MWD	San Vicente WRP	—	—	0.5	—	—	0.6	550	Reuse-Irrigation
Rancho Santa Fe CSD	Santa Fe Valley WRF	—	—	0.5	—	—	0.5	1,000	Irrigation
Rancho Santa Fe CSD	Rancho Santa Fe WRF	0.5	0.5	-	0.6	0.6	0.6	1,100	Percolation
Rincon del Diablo MWD	Harmony Grove Village	—	—	0.2	—	—	0.3	1,000	Reuse - Irrigation
Rincon del Diablo MWD	Harmony Grove Village - South	—	—	0.2	—	—	0.3	1,000	Reuse - Irrigation
San Diego, City of	North City WRP	52.0	52.0	52.0	52.0	52.0	52.0	1,000	Reuse

Responsible Agency	Facility Name	Planned Capacity 2025 (mgd) PT	Planned Capacity 2025 (mgd) ST	Planned Capacity 2025 (mgd) TT	Planned Capacity 2045 (mgd) PT	Planned Capacity 2045 (mgd) ST	Planned Capacity 2045 (mgd) TT	Effluent Quality for TDS (mg/L)	Disposal Method
San Diego, City of	Point Loma WWTP	240.0	—	—	240.0	—	—	1700-3000	Outfall
San Diego, City of	Harbor Drive WRP	—	—	—	72	72	72	1,000	Reuse
San Diego, City of	South Bay WRP	15	15	15	15	15	15	1,000	Reuse-Outfall
San Elijo JPA	San Elijo WRF	5.3	5.3	3.0	5.3	5.3	5.3	950	Reuse-Outfall
Camp Pendleton Marine Corps Base	Southern Region TTP	—	—	7.5	—	—	7.5	750	Irrigation/ Injections/Outfall
Camp Pendleton Marine Corps Base	Northern Region TTP	—	—	4.0	—	—	4.0	750	Irrigation/ Percolation
Vallecitos WD	Meadowlark WRF	5.0	5.0	5.0	5.0	5.0	5.0	1,000	Reuse
Valley Center MWD	Lower Moosa Canyon WRF	0.40	0.40	0.40	0.875	0.875	0.875	1,000	Irrigation
Valley Center MWD	North Village WRF	—	—	—	0.125	0.125	0.125	1,000	Irrigation
Valley Center MWD	Welk WRF	—	—	—	0.125	0.125	0.125	1,000	Irrigation (Golf Course)
Valley Center MWD	Lilac Ranch WRF	—	—	—	0.350	0.350	0.350	1,000	Irrigation
Valley Center MWD	Woods Valley Ranch WRF	0.275	0.275	0.275	0.475	0.475	0.475	1,000	Irrigation (Golf Course)
Valley Center MWD	Meadowood WRF	0.170	0.170	0.170	0.170	0.170	0.170	1,000	Irrigation
Whispering Palms CSD	Whispering Palms WPCF	0.5	0.5	—	0.5	0.5	0.5	963	Pasture-Percolation
Total Capacity		**422.73**	**184.13**	**130.93**	**505.50**	**267.00**	**227.38**		

Notes: mg/L = milligrams per liter; PC = Planned Capacity; PT = Primary Treatment, ST = Secondary Treatment, TT = Tertiary Treatment; CSD = Community Services District; CWD = County Water District; mg/L = milligrams per liter; MWD = Municipal Water District; RRF = Resource Recovery Facility; TDS = total dissolved solids; TTP = Tertiary Treatment Plant; WPCF = Water Pollution Control Facility; WRF = Water Reclamation/ Recycling Facility; WRP = Water Reclamation Plant; WWTP = Wastewater Treatment Plant.

Source: SDCWA 2021.

City of San Diego Metropolitan Sewerage System

The Metropolitan Sewerage System, which is owned and operated by the City of San Diego Public Utilities Department's Wastewater Branch, provides regional wastewater treatment services for the city of San Diego and 15 other cities and sanitation districts: Chula Vista, Coronado, Del Mar, El Cajon, Imperial Beach, La Mesa, National City, and Poway; the Lemon Grove Sanitation District; the Padre Dam Municipal and Otay water districts; and the County of San Diego (on behalf of the Winter Gardens Sewer Maintenance District, and the Alpine, Lakeside, and Spring Valley sanitation districts).

The metropolitan sewerage system consists of the Point Loma Wastewater Treatment Plant and Ocean Outfall, the North City Water Reclamation Plant and South Bay Water Reclamation Plant, the Metro Biosolids Center, Environmental Monitoring and Technical Services Laboratory, nine major pump stations, and 75 smaller pump stations (City of San Diego 2024b). The pump stations move wastewater through sewers to the various treatment plants.

The Point Loma Wastewater Treatment Plant treats roughly 175 million gallons of wastewater per day (although it has a maximum capacity of 240 million gallons per day) and discharges it through the Point Loma Ocean Outfall into the Pacific Ocean (City of San Diego 2024b). Any sludge or biosolids accumulated from the processing of the wastewater at this plant are sent to the Metro Biosolids Center for further processing. Up to 30 million gallons of wastewater can be treated per day at the North City Water Reclamation Plant (City of San Diego 2024b). Wastewater from northern San Diego is processed and purified and then redistributed through a reclaimed water pipeline for irrigating, landscaping, and industrial uses. Water processed through the South Bay Water Reclamation Plant can either be discharged into the ocean through the South Bay Ocean Outfall or sent on to tertiary treatment to be used for reclaimed water purposes. The South Bay Water Reclamation Plant has the capacity to process 15 million gallons per day (City of San Diego 2024b).

South Bay International Wastewater Treatment Plant

The International Boundary and Water Commission's Minute No. 283 of July 8, 1990 was approved by both the United States and Mexico, which allowed for the establishment of the Clean Water Partnership binational interagency and authorized the construction of the South Bay International Wastewater Treatment Plant (SBIWTP). The SBIWTP was constructed as a response to untreated wastewater flowing north from Tijuana and polluting the Tijuana River in the United States. The plant provides secondary treatment for 25 million gallons of sewage per day that is then discharged into the Pacific Ocean (IBWC 2024). The treatment plant is located in San Ysidro, about 2 miles west of the point of entry and directly north of Tijuana's main wastewater pumping station.

Storm Water Drainage Facilities

Storm water runoff occurs when precipitation from rain and snowmelt events flows over land or impervious surfaces and does not infiltrate into the ground. This effect is increased by the amount of impervious surfaces (paved streets, parking lots, and building rooftops). In more rural, less developed areas, such as in the unincorporated county, storm water is able to flow into natural drainage sites, such as creeks, streams, or rivers. In urban areas, storm water runoff is collected in a municipal separate storm sewer system (MS4), through a system of conveyances consisting of roads with drainage systems, streets, catch basins, curbs, gutters, ditches, artificial channels, or storm drains. Storm water systems such as these are designed to prevent flooding in urban areas, control erosion, and protect water quality. Section 4.10, "Hydrology and Water Quality," provides analysis of the hydrology and water quality impacts of storm water associated with implementation of the proposed Plan. Each MS4 operator identified in Table 4.15-8 is responsible for operation, maintenance, and management of its own system. MS4s are interconnected, and their operators often share facilities, cooperatively manage systems, and coordinate pollution control efforts.

Table 4.15-8 Operators of Municipal Separate Storm Sewer Systems in the San Diego Region

Facility Name	Agency/Discharger	City
Carlsbad MS4	Carlsbad City	Carlsbad
Chula Vista MS4	Chula Vista City	Chula Vista
Coronado MS4	Coronado City	Coronado
Del Mar MS4	Del Mar City	Del Mar
El Cajon MS4	El Cajon City	El Cajon
Encinitas MS4	Encinitas City	Encinitas
Escondido MS4	Escondido City	Escondido
Imperial Beach MS4	Imperial Beach City	Imperial Beach
La Mesa MS4	La Mesa City	La Mesa
Lemon Grove MS4	Lemon Grove City	Lemon Grove
National City MS4	National City	National City
Oceanside MS4	Oceanside City	Oceanside
Poway MS4	Poway City	Poway
San Diego City, MS4	San Diego City Storm Water	San Diego
San Diego County, MS4	San Diego County Department of Environmental Health	San Diego
San Diego International Airport MS4	San Diego County Regional Airport Authority	San Diego
San Diego Port District MS4	San Diego Unified Port District	San Diego
San Marcos MS4	San Marcos City	San Marcos
Santee MS4	Santee City	Santee
Solana Beach MS4	Solana Beach City	Solana Beach
Vista MS4	Vista City	Vista
Caltrans MS4	Caltrans	Statewide
Phase II Small MS4	Del Mar Fairground	Del Mar
Phase II Small MS4	UC San Diego	San Diego

Note: MS4 = municipal separate storm sewer system.

Source: SWRCB 2015.

Each jurisdiction within the Plan area requires the implementation of storm water pollution prevention techniques, so that conveyance systems are designed to protect surface and ground water quality, as mandated by state and federal regulations. These regulations require a multifaceted approach that involves infrastructure improvements and maintenance; water quality monitoring; source identification of pollutants; land use planning policies and regulations; and pollution prevention activities such as education, code enforcement, outreach, public advocacy, and training, and are explained in more detail in Section 4.15.2, "Regulatory Setting," below.

Electricity and Natural Gas Services

San Diego County is served by San Diego Gas and Electric (SDG&E), which provides electricity and natural gas to more than 3.7 million customers (i.e., 1.4 million accounts) in the county and portions of southern Orange County (SDG&E 2025). The utility has a diverse power production portfolio, composed of a variety of renewable and nonrenewable sources. Energy production typically varies by season and by year. Regional electricity loads also tend to be higher in the summer because the higher summer temperatures drive increased demand for air-conditioning. In contrast, natural gas loads are higher in the winter because the colder temperatures drive increased demand for natural gas heating. See Table 4.15-9 for a summary of electricity and natural gas use within SDG&E service area.

Table 4.15-9 Electricity and Natural Gas Consumption in the SDG&E Service Area in 2022

Sector	Electricity (GWh)	Natural Gas (million therms)
Agriculture and water pump	380	5
Commercial	7,811	175
Industry	1,868	26
Mining and construction	1,513	31
Residential	398	4
Streetlight	5,817	281
Total	79	522

Note: GWh =gigawatt hours.

Sources: CEC 2022a, 2022b.

Telecommunications Services

Telecommunications services—telephone and cellular phone services, cable television, and internet and broadband services in the San Diego region—are provided by a number of privately owned companies.

Telephone and Cellular Phone

Local phone service in the San Diego region is provided primarily by AT&T, which offers traditional landline (copper wire) service as well as digital telephone service. Digital telephone service is offered by a number of other providers, including Cox, Time Warner, Vonage, and a variety of smaller companies. AT&T, Sprint Nextel Corporation, T-Mobile, Verizon Wireless, and Spectrum are some of the cellular telephone providers offering service in the San Diego region. Providers use a combination of underground lines and above ground cellular towers to provide telephone service to the Plan area. Cellular towers are distributed throughout the San Diego region to provide coverage.

Cable Television and Internet

Cable television and internet services are offered by many of the same companies that provide cellular phone service in the area and can be delivered via a number of different technologies, including mobile (cellular), wireless, wireless local area network, and broadband. Table 4.15-10 provides a list of all of the providers in the San Diego region. Fiber optic cables and copper wires are generally collocated with other utility infrastructure, which is usually installed underground within new development in order to reduce visual and safety hazards. With the advent of streaming services, only broadband internet infrastructure is needed to access television service.

Broadband refers to a high-speed internet connection that can transport multiple signals and traffic types. According to the Federal Communications Commission (FCC) (2020), 100% of residents in the San Diego region currently have access to broadband via at least one provider.

Table 4.15-10 Fixed Broadband Providers in the San Diego Region

Provider	Technology
A+ Wireless	Cable
Accel Wireless	Terrestrial fixed wireless
Allstream	Optical carrier/fiber, other copper wireline
AT&T	DSL, optical carrier/fiber, fixed wireless
Birch Communications	DSL, other copper wireline
Block Line Systems	Other copper wireline
California Internet	Terrestrial fixed wireless
Call One	Optical carrier/fiber, other copper wireline
CBTS Technology Solutions	Other copper wireline

Provider	Technology
Cellco	Terrestrial fixed wireless
Charter Communications, Inc.	Cable, optical carrier/fiber
Cogent Communications	Optical carrier/fiber, other copper wireline
Comcast	Cable
Compudyne	Optical carrier/fiber, terrestrial fixed wireless
Consolidated Communications	Optical carrier/fiber
Cox Communications, Inc.	Cable, optical carrier/fiber
Earthlink	DSL, optical carrier/fiber, other copper wireline
Frontier Communications	DSL
GCI Communication	Satellite
Google Fiber	Optical carrier/fiber
HUGHES	Satellite
Level 3 Communications	Optical carrier/fiber, other copper wireline
Logix Communications	Optical carrier/fiber
MCI Communications	Optical carrier/fiber, other copper wireline
Mediacom	Cable
Netfortris	Optical carrier/fiber, other copper wireline
Network Billing Systems	Optical carrier/fiber, other copper wireline
One Ring Networks	Other copper wireline, terrestrial fixed wireless
PAETEC Communications	DSL, optical carrier/fiber
Sail Internet	Terrestrial fixed wireless
San Diego Broadband	Terrestrial fixed wireless
SDWISP	Terrestrial fixed wireless
Sky Valley Network	Terrestrial fixed wireless
Southern California Telephone Company	Terrestrial fixed wireless
Tailwind Voice & Data	DSL, cable modem, optical carrier/fiber, other copper wireline
Tierzero	Optical carrier/fiber, other copper wireline, terrestrial fixed wireless
U.S. TelePacific	Optical carrier/fiber, other copper wireline, terrestrial fixed wireless, DSL
Utility Telecom	Optical carrier/fiber, other copper wireline
ViaSat	Satellite
VSAT Systems	Satellite
Wave Broadband	Cable, optical carrier/fiber
Webpass	Optical carrier/fiber
XO Communication Services	Optical carrier/fiber
Zayo	Optical carrier/fiber
Zito Media	Cable

Source: FCC 2020.

Solid Waste Disposal and Recycling Facilities

The County of San Diego is the designated local enforcement agency (LEA) for all solid waste facilities in the region except for facilities within the city of San Diego, which is its own LEA. The LEAs are certified by the California Department of Resources Recycling and Recovery (CalRecycle) and have the responsibility of ensuring that solid waste facilities are operated and closed correctly, and that solid waste is stored and transported properly. LEAs can issue operating permits to facilities, including landfills, transfer stations, material recovery, and composting facilities.

Solid Waste Generation

Solid waste refers to garbage, refuse, and other discarded solid materials that are generated by residential, commercial, and industrial activities. Solid waste is measured in volume and weight, and is classified into one of eight categories: paper, plastics, glass, metals, yard waste, other organics, other wastes, and special wastes. CalRecycle provides specific definitions of these classifications on their website (CalRecycle 2025a). Solid waste generation is measured by disposal and diversion. Disposal is defined in Public Resources Code (PRC) Section 40192 as "the final deposition of solid wastes onto land, into the atmosphere, or into the waters of the state." Diversion includes programs and practices, such as waste prevention and source reduction, recycling, reuse, and composting, that reduce the total amount of waste that requires disposal. Table 4.15-11 shows the 2023 waste generation and disposal rates by jurisdiction.

Table 4.15-11 Total Waste Generation Rates and Annual Disposal Rates by Jurisdiction in the San Diego Region

City	Total Waste Generation (tons)	Annual Disposal Rate (PPD)
City of Carlsbad	137,914	15.9
City of Chula Vista	212,105	19.8
City of Coronado	50,061	27.9
City of El Cajon	97,009	16.6
City of Encinitas	57,770	16.3
City of Escondido	183,515	24.4
City of Imperial Beach	16,444	28.4
City of La Mesa	47,228	14.2
City of Lemon Grove	20,584	19.3
City of National City	56,665	18.6
City of Oceanside	147,691	21.4
City of Poway	47,262	13.0
City of San Diego	1,607,277	16.8
City of San Marcos	93,085	17.6
City of Santee	56,232	22.3
City of Solana Beach	16,006	17.1
City of Vista	101,446	20.2
Unincorporated San Diego	515,114	29.4
Total	3,463,408	359.2

Note: PPD = pounds per person per day.

Source: CalRecycle 2023.

Landfills

There are four landfills in the San Diego region, three of which are privately operated and one of which is operated by the City of San Diego. The landfills receive a total daily throughput of approximately 19,750 tons per

day. Together, they have a total remaining capacity of 121,955,024 cubic yards, which is roughly 40% of their total permitted capacity (CalRecycle 2024a). Table 4.15-12 shows the remaining capacity of landfills located in the San Diego region and their estimated closure dates. Marine Corps Base Camp Pendleton operates two additional landfills for its exclusive use that are not included in the table.

Table 4.15-12 Landfills Located in the San Diego Region and Estimated Capacity

Facility	Operator	Solid Waste Information System No.	Throughput (tons/day)	Maximum Permitted Capacity (cubic yards)	Remaining Capacity (cubic yards)	Percent Capacity Remaining	Estimated Closure Date
Borrego Landfill	Borrego Landfill, Inc.	37-AA-0006	50	476,098	88,750	19%	12/31/2046
Otay Landfill	Otay Landfill, Inc.	37-AA-0010	6,700	61,154,000	11,307,565	18%	2/28/2030
West Miramar Sanitary Landfill	City of San Diego	37-AA-0020	8,000	97,354,735	11,080,871	11%	1/1/2031
Sycamore Landfill	Sycamore	37-AA-0023	5,000	147,908,000	99,477,838	67%	12/31/2042
Total	—	—	19,750	306,892,833	121,955,024	40%	—

Source: CalRecycle 2025b.

Collection, Transfer, and Material Recovery Facilities

Solid waste generated from residences and businesses in the San Diego region is collected by private operators, under contract with each of the cities and the county and permitted by the state. The City of San Diego is an exception in the region and operates its own solid waste management system, including solid waste collection. Twenty transfer stations in the region receive solid waste and transfer it into vehicles or containers to be moved to a landfill or transformation facility. There are 14 additional transfer stations that are combined with material recovery facilities (MRFs) that remove recyclables and other valuable materials from the solid waste as it is being processed. A final transfer station also chips and grinds wood waste. MRFs process unseparated trash or separated trash with commingled recyclables. Table 4.15-13 provides a list of transfer facilities and MRFs for the region and their individual daily throughputs.

Table 4.15-13 Transfer/Processing Facilities in the San Diego Region

Facility	Operator	Solid Waste Information System (SWIS) Number	Maximum Permitted Throughput (tons/day)
EDCO Recycling	EDCO Disposal, Inc.	37-AA-0964	516
SANCO Recycling	SANCO Services	37-AA-0956	1,000
Ramona MRF and Transfer Station	JEMCO Equipment Corporation	37-AA-0925	700
Universal Refuse Removal Recycling & Transfer Station	Universal Refuse Removal	37-AA-0929	2,000
Palomar Transfer Station, Inc.	Palomar Transfer Station, Inc	37-AH-0001	2,250
EDCO Recovery and Transfer Station	EDCO Disposal Corporation	37-AA-0105	1,500
Escondido Resource Recovery	JEMCO Equipment Corporation	37-AA-0906	3,223
EDCO Station	EDCO Disposal Corporation	37-AA-0922	2,000
Fallbrook Recycling Facility	Fallbrook Refuse Service	37-AA-0923	500
Amswede Recycling	Amswede Inc.	37-AA-0952	175
EDCO CDI Recycling	EDCO Waste and Recycling	37-AA-0953	175
SANCO Resource Recovery	SANCO Services	37-AA-0956	1,000
EDCO Waste and Recycling – LVTO	EDCO Waste and Recycling	37-AA-0969	15
Waste Management of San Diego – LVTO	Universal Refuse Removal Recycling & TS	37-AA-0967	15
Escondido Disposal, Inc.	Escondido Disposal, Inc.	37-AA-0970	15

Facility	Operator	Solid Waste Information System (SWIS) Number	Maximum Permitted Throughput (tons/day)
EDCO Bin Yard	EDCP Bin Yard	37-AA-0972	15
Otay CDI MVPF	Otay Landfill Inc.	37-AA-0973	174
Escondido LVTO	Caltrans Region 2	37-AA-0976	15
Descanso LVTO	Caltrans Region 1	37-AA-0977	15
Boulevard LVTO	Caltrans Region 1	37-AA-0978	15
Carlsbad LVTO	Caltrans Region 2	37-AA-0979	15
Chula Vista LVTO	Caltrans Region 2	37-AA-0980	15
Santee LVTO	Caltrans Region 1	37-AA-0981	15
Caltrans Henshaw LVTO	Caltrans Region 1	37-AA-0983	15
City of San Diego Environmental Service Department LVTO	City of San Diego Refuse Collection	37-AA-0967	15
Waste Management North Co. Limited Col. Trans Op.	Waste Management Inc. North County	37-AA-0958	15
Allan Company MRF & Transfer Station	Cedarwood-Young Company, dba Allan Co.	37-AA-0016	1,000
Coronado Bridge Paint LVTO	California Department of Transportation	37-AA-0018	15
Kearny Mesa LVTO	California Department of Transportation	37-AA-0023	15
Terra Bella Nursery, Inc.	Terra Bella Nursery, Inc.	37-AA-0024	199
Miramar Greenery	City of San Diego	37-AA-0003	1,400
West Miramar Sanitary Landfill	City of San Diego	37-AA-0020	8,000
Total			**26,037**

Notes: CDI = construction, demolition and inert processing; LVTO = limited volume transfer operation; MRF = material recovery facilities.

Source: CalRecycle 2025b.

Recycling, Composting, Chipping, and Grinding

The implementation of recycling, composting, chipping, and grinding practices reduces the amount of material that must be sent to the landfill. There are more than 80 recycling centers in the San Diego region that collect recyclable materials (CalRecycle 2024a). In addition, three composting facilities in the region collect, grind, mix, pile, and add moisture and air to organic materials to speed natural decay and produce a soil amendment, and another four chipping and grinding facilities in the region are designed to reduce the size of compostable material (CalRecycle 2023). One organics processing facility is also permitted in the county (CalRecycle 2023).

Construction and Demolition and Inert Debris Facilities

Construction and demolition (C&D) material and inert debris are solid waste that pose a potential threat to public health and safety and the environment and must be handled differently from municipal solid waste. C&D materials include lumber, drywall, glass, metal, roofing material, tile, carpeting and floor coverings, piping, concrete, cardboard and other packaging materials, dirt, and rock. Of these materials, metals are recycled the most, while lumber is most commonly sent to the landfill. According to the 2021 Disposal Facility-Based Characterization of Solid Waste in California, inert and other materials are estimated to account for 12% of the disposed waste stream in the state, while metal accounts for 5% and glass accounts for 2% (CalRecycle 2024b). There are 17 C&D recyclers in San Diego, 1 large processing facility, 3 medium processing facilities, and 5 inert fill-disposal operations (County of San Diego 2021a). According to CalRecycle, the San Diego region diverted 65,546 tons of C&D debris in 2018 from local landfills (CalRecycle 2018).

4.15.2 Regulatory Setting

FEDERAL LAWS, REGULATIONS, PLANS, AND POLICIES

Resource Conservation and Recovery Act of 1976

Subtitle C of the Resource Conservation and Recovery Act (RCRA) (42 US Code [USC] 6901 et seq.) gives the US Environmental Protection Agency (EPA) the authority to control hazardous waste from the "cradle-to-grave," and was designed to protect human health and the environment, reduce/eliminate the generation of hazardous waste, and conserve energy and natural resources; to reduce the amount of waste generated; and to ensure that wastes are managed in an environmentally sound manner. RCRA regulates the management of solid waste (e.g., garbage), hazardous waste, and underground storage tanks holding petroleum products or certain chemicals. Solid waste, as defined by RCRA, includes both hazardous and nonhazardous materials. RCRA establishes a framework for the management of nonhazardous waste in Subtitle D. Nonhazardous solid waste includes household garbage, sludge from waste treatment plants, construction debris, and various types of nonhazardous industrial waste. Subtitle D states the requirements for solid waste planning and encourages recycling and recovery programs that most directly affect state and regional solid waste management authorities. EPA also developed federal criteria for the proper design and operation of municipal solid waste landfills and other solid waste disposal facilities. EPA approved the State of California's program, a joint effort of the California Integrated Waste Management Board, the State Water Resources Control Board (SWRCB), the regional water quality control boards (RWQCBs), and LEAs, on October 7, 1993.

US Department of Transportation Act Of 1966, Section 4(f)

Section 4(f) of the US Department of Transportation Act (49 USC Section 303) was enacted to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites. Section 4(f) requires a comprehensive evaluation of all environmental impacts resulting from federal transportation projects administered by the Federal Highway Administration, Federal Transit Administration, and Federal Aviation Administration that involve the use or interference with use of the following types of land:

- public park lands;
- recreation areas;
- wildlife and waterfowl refuges; and
- publicly or privately owned historic properties of federal, state, or local significance.

This evaluation, called the Section 4(f) statement, must be sufficiently detailed to permit the U.S. Secretary of Transportation to determine that:

- there is no feasible and prudent alternative to the use of such land;
- the program includes all possible planning to minimize harm to any park, recreation area, wildlife and waterfowl refuge, or historic site that would result from the use of such lands; or
- if there is a feasible and prudent alternative, a proposed project using Section 4(f) lands cannot be approved by the Secretary of Transportation; or if there is no feasible and prudent alternative, the proposed project must include all possible planning to minimize harm to the affected lands.

Detailed inventories of the locations and likely impacts on resources that fall into the Section 4(f) category are required in project-level environmental assessments.

In August 2005, Section 4(f) was amended to simplify the process for approval of projects that have only minimal impacts on lands affected by Section 4(f). As amended, the US Secretary of Transportation may find such a minimal impact if consultation with the state historic preservation officer results in a determination that a transportation project will have no adverse effect on a historic site or that there will be no historic properties affected by the proposed action. In this instance, analysis of avoidance alternatives is not required, and the Section 4(f) evaluation process is complete.

Clean Water Act

The Clean Water Act (CWA) was established in 1972 and is the basis for regulation of the discharge of pollution into the waters of the United States and regulation of surface water quality standards (33 USC 1251 et seq.). States are required to adopt water quality standards for all surface waters of the United States, as detailed in Section 303. Section 402 of the CWA establishes the National Pollutant Discharge Elimination System (NPDES), which regulates the discharge of pollutants from point sources. Municipal point sources consist primarily of domestic treated sewage and processed water, including municipal sewage treatment plant outfalls and storm water conveyance system outfalls. These outfalls contain pollutants that are emitted into waters of the United States. Without a permit, the discharge of pollutants from point sources into navigable waters of the United States is prohibited. NPDES permits require regular water quality monitoring. For a detailed discussion of the CWA, see the "Regulatory Setting" in Section 4.10, "Hydrology and Water Quality." Storm water and wastewater discharges must meet water quality standards that are established pursuant to the CWA.

National Energy Act of 1978

The National Energy Act of 1978 included the Public Utility Regulatory Policies Act (Public Law 95-617), Energy Tax Act (Public Law 95-318), National Energy Conservation Policy Act (Public Law 95-619), Power Plant and Industrial Fuel Use Act (Public Law 95-620), and the Natural Gas Policy Act (Public Law 95-621).

The intent of the National Energy Act was to promote greater use of renewable energy, provide residential consumers with energy conservation audits to encourage slower growth of electricity demand, and promote fuel efficiency. The Public Utility Regulatory Policies Act created a market for nonutility electric power producers to permit independent power producers to connect to their lines and to pay for the electricity that was delivered.

The Energy Tax Act promoted fuel efficiency and renewable energy through taxes and tax credits. The National Energy Conservation Policy Act requires utilities to provide residential consumers with energy conservation audits and other services to encourage slower growth of electricity demand.

Energy Policy Act of 2005

This comprehensive energy legislation contains several electricity-related provisions that aim to, among other things, help ensure that consumers receive electricity over dependable, modern infrastructure, remove outdated obstacles to investment in electricity transmission lines, make electricity reliability standards mandatory instead of optional, and give federal officials the authority to site new power lines in US Department of Energy–designated national corridors in certain limited circumstances.

Telecommunications Act of 1996

The Telecommunications Act (47 USC Chapter 5) was the first major overhaul of telecommunications law in almost 62 years. The Act deregulates local phone service and allows long-distance carriers and cable television companies to provide local phone services and local telephone companies to provide long distance service. Section 706 of the Act requires that the FCC determine annually whether advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion, and assesses the impact of the FCC's policies on broadband deployment.

U.S. Green Building Council's Leadership in Energy and Environmental Design

Leadership in Energy and Environmental Design (LEED) is a nationally recognized certification program administered by the U.S. Green Building Council that promotes sustainable building design, construction, and operation. Projects are rated based on performance in categories such as energy efficiency, water use, materials selection, and indoor environmental quality. LEED encourages voluntary reductions in energy use and greenhouse gas emissions beyond minimum code requirements.

Energy Star Homes

Energy Star is a joint program of the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy that certifies new homes meeting strict energy efficiency guidelines. Energy Star homes typically include

high-performance insulation, efficient heating and cooling systems, and energy-efficient appliances, resulting in lower utility costs and reduced environmental impact.

STATE LAWS, REGULATIONS, PLANS, AND POLICIES

California Mutual Aid Plan

The Emergency Managers Mutual Aid (EMMA) system is a collaborated effort between city and county emergency managers in the Office of Emergency Services in the coastal, southern, and inland regions of the state. EMMA provides service in the emergency response and recovery efforts at the Inland Regional Emergency Operations Center, local Emergency Operations Centers, the Disaster Field Office, and community service centers. The purpose of EMMA is to support disaster operations in affected jurisdictions by providing professional emergency management personnel. EMMA operates under the broader framework of California's accordance with the Master Mutual Aid Agreement, which facilitates the sharing of resources among local and state jurisdictions during emergencies. While the Master Mutual Aid Agreement covers all types of emergency assistance, EMMA specifically mobilizes trained emergency management staff to assist with coordination, planning, and operations. Local and state emergency managers have responded in support of each other under a variety of plans and procedures.

Assembly Bill 16, Chapter 33, Statutes of 2002

AB 16 created the Critically Overcrowded School Facilities program to supplement the construction provisions within the School Facilities Program (SFP). The SFP provides state funding assistance for new construction and modernization of facilities. The Critically Overcrowded School Facilities program allows school districts that have been determined by the California Department of Education (CDE) to have critically overcrowded facilities to apply for new construction projects without meeting all SFP program requirements. Districts with SFP new construction eligibility and school sites included on a CDE list of source schools may apply.

Senate Bill 50 — Leroy F Greene Schools Facilities Act of 1998, Chapter 407, Statutes of 1998

SB 50 restricts the ability of local agencies to deny project approvals on the basis that public school facilities (classrooms, auditoriums, etc.) are inadequate. School impact fees are collected at the time building permits are issued. Payment of school fees is required by SB 50 for all new residential development projects and is considered "full and complete mitigation" of any school impacts. School impact fees are payments to offset capital cost impacts associated with new developments, which result primarily from costs of additional facilities, related furnishings and equipment, and projected capital maintenance requirements. As such, agencies cannot require additional mitigation for any school impacts.

Senate Bill 1389, Chapter 568, Statutes of 2002

The California Energy Commission (CEC) is responsible for, among other things, forecasting future energy needs for the state and developing renewable energy resources and alternative renewable energy technologies for buildings, industry, and transportation. SB 1389 requires CEC to prepare an integrated energy policy report every 2 years assessing major energy trends and issues facing the state's electricity, natural gas, and transportation fuel sectors. The report also provides policy recommendations to conserve resources, protect the environment, and ensure reliable, secure, and diverse energy supplies.

The 2023 Integrated Energy Policy Report was adopted in 2024. Energy topics covered in the report include decarbonizing buildings, integrating renewables, energy efficiency, energy equity, integrating renewable energy, updates on Southern California electricity reliability, climate adaptation activities for the energy sector, natural gas assessment, transportation energy demand forecast, and the California Energy Demand Forecast (CEC 2024). The 2025 draft Integrated Energy Policy Report Update will be released in early 2026.

California Building Standards Code (Title 24, California Code of Regulations)

Building Standards Code Title 24 applies to all buildings throughout the State of California and includes requirements for structural, mechanical, electrical, and plumbing systems, and requires measures for energy conservation, green design, construction and maintenance, and fire and life safety and accessibility (24 California

Code of Regulations [CCR]). Cities and counties are required by state law to enforce Title 24; however, they can adopt more restrictive ordinances.
As discussed in Section 4.6, "Energy," as part of the California Building Standards Code, the California Green Standards Code was adopted, which identifies aggressive energy efficiency standards for new residential and non-residential buildings that are continuously updated every few years. Additionally, the California Building Energy Efficiency Standards was adopted, which regulates the energy consumption of new residential and nonresidential buildings in California.

GreenPoint Rated Homes
Administered by Build It Green, the GreenPoint Rated system is California-specific and scores residential buildings based on five environmental categories: energy efficiency, resource conservation, indoor air quality, water conservation, and community impact. The program aligns with California energy codes (Title 24) and provides a flexible yet rigorous rating for new and existing homes.

California Green Builder Program
This voluntary program, developed by the California Building Industry Association, targets builders who exceed Title 24 energy efficiency requirements and incorporate environmentally responsible practices. The program includes standards for energy and water conservation, construction waste recycling, and indoor air quality.

California Rules for Overhead Electrical Line Construction
The Rules for Overhead Electrical Line Construction prescribed by the Public Utilities Commission of the State of California under General Order No. 95 set requirements for overhead line design, construction, and maintenance. The rules were last updated in December 2024.

California Government Code Sections 4216–4216.9, Protection of Underground Infrastructure
California Government Code Sections 4216 through 4216.9 require an excavator to notify appropriate known operators of subsurface installations within the delineated boundaries of a proposed area of excavation.

Community Facilities Act of 1982 and Amendments
The Community Facilities Act of 1982 (Government Code Section 53324), also commonly known as the Mello-Roos Act, enables certain public agencies to designate a Mello-Roos Community Facilities District, which allows for the financing of public improvements and services. These include basic infrastructure, police protection, fire protection, ambulance services, schools, parks, libraries, museums, and other cultural facilities. Mello-Roos Community Facilities Districts are usually created to finance improvements and services when no other funding sources are available and require a two-thirds majority vote of residents living within the proposed boundaries. They are used especially often (but not exclusively) in new development areas. Upon approval, a special tax lien is placed against each property in the district, and residents pay a special tax each year. This tax is not based on property value, but on formulas that consider physical characteristics, such as square footage and structure size.

Quimby Act and AB 1359
Cities and counties have been authorized since the passage of the 1975 Quimby Act (Government Code Section 66477) to pass ordinances requiring that developers set aside land, donate conservation easements, or pay fees for park improvements. Revenues generated through the Quimby Act cannot be used for the operation and maintenance of park facilities. The dedicated land or fees may only be used for the development or rehabilitation of neighborhood or community parks or recreational facilities in the subdivision they were provided for, according to AB 1359 (Chapter 412, Statutes of 2013), unless certain requirements are met and an exception is made. The goal of the Quimby Act is to require developers to help mitigate the impacts of property improvements. The act gives authority for passage of land dedication ordinances only to cities and counties. Special districts must work with cities or counties to receive parkland dedication or in-lieu fees. The fees must be paid and land conveyed directly to the local public agencies that provide park and recreation services communitywide.

California Coastal Act, Coastal Recreation Policies

California Coastal Act policies related to coastal recreation include PRC Section 30210, which requires that maximum access and recreational opportunities shall be provided for all people, and Section 30213, which protects lower-cost visitor and recreational facilities, and encourages the provision of public recreational opportunities.

Subdivision Map Act of 1974

One of the powers granted to local jurisdictions by the Subdivision Map Act (Government Code Section 66410 et seq.) is the authority to impose drainage improvements or drainage fees and assessments. Specifically, local jurisdictions may require the provision of drainage facilities, proper grading and erosion control, dedication of land for drainage easements, or payment of fees needed for construction of drainage improvements. The types and applicable standards of the improvements may be specified in the local ordinance.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Water Code, Division 7) regulates activities and factors that may affect the quality of the waters of the State of California, to protect the health, safety, and welfare of the people. It charges the state with the act of protecting the waters from degradation and established nine RWQCBs throughout the state. The act declares that SWRCB and each RWQCB will have the primary responsibility for water quality control. Each RWQCB is in charge of updating their water quality control plans, known as basin plans. They also regulate pollutant or nuisance discharges that may affect surface or groundwater. Storm water and wastewater discharges must meet water quality standards that are established in basin plans. The Water Quality Control Plan for the San Diego Basin, also known as the Basin Plan, establishes water quality objectives and implementation strategies to protect the beneficial uses of water bodies in the San Diego region and describes monitoring plans to assess its effectiveness (RWQCB 2016). Beneficial uses are defined as "the uses of water necessary for the survival and well-being of man, plants, and wildlife," and promote the economic, social, and environmental goals of humankind. Policies in the Basin Plan define treatment levels of water that must be met by regional wastewater facilities.

State Water Resources Control Board and RWQCBs

The SWRCB issues individual and general NPDES permits for wastewater and storm water through authorization of the EPA. Discharges that may impact surface or groundwater, and which are not regulated by an NPDES permit, are issued a waste discharge requirement (WDR) that serves as a permit under the authority of the California Water Code. The RWQCBs issue Land Disposal WDRs that permit certain solid and liquid waste discharges to land to ensure that wastes do not reach surface water or groundwater. Land Disposal WDRs contain requirements for liners, covers, monitoring, cleanup, and closure. The RWQCBs also permit certain point source discharges of waste to land that have the potential to affect surface or groundwater quality. This category of discharges, known as "Non-15" WDR, is the most diverse and includes sewage sludge and biosolids, industrial wastewater from power plants, wastes from water supply treatment plants, treated wastewater for aquifer storage and recovery, treated groundwater from cleanup sites, and many others.

Related to wastewater collection and treatment facilities, storm water drainage facilities, and landfills, the SWRCB has issued the following orders:

- Caltrans NPDES Permit (Order 99-06-DWQ): Requires Caltrans to regulate nonpoint source discharge from its properties, facilities, and activities. Among other requirements, Caltrans must annually update an enforceable Storm Water Management Plan. See Section 4.10, Hydrology, for more detail.
- Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (Order No. 2006-0003-DWQ): Requires all federal and State agencies, municipalities, counties, districts, and other public entities that own, operate, or are otherwise responsible for sanitary sewer systems greater than 1 mile in length that collect and/or convey untreated wastewater to a publicly owned treatment facility in California to prepare sewer system management plans and report all sanitary sewer overflows (SSOs) to the SWRCB. Order No. WQ 2008-0002-EXEC amended the statewide Monitoring and Reporting Program for SSOs that reach surface waters or

storm drains. The RWQCB issued Order No. R9-2007-0005 to reaffirm the prohibition of SSOs upstream of a wastewater treatment facility.

Water Quality Control Policy for Siting, Design, Operation and Maintenance of Onsite Wastewater Treatment System (CCR Title 23)

AB 885 (Chapter 781, Statutes of 2000) required that the SWRCB, along with other interested parties, adopt specified regulations or standards for the permitting and operation of prescribed onsite wastewater treatment systems (OWTS). Each RWQCB must incorporate the new standards and regulations into their regional water quality control plans. Resolution R9-2015-0008, adopted in April 2015, incorporated the OWTS policy into the San Diego Water Quality Control Plan, and Resolution No. 2018-0019 amended the Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems (the "OWTS Policy") in CCR Title 23 (SWRCB 2018). On site wastewater treatment systems allow habitation in locations that are far from central wastewater treatment plants, such as areas of the unincorporated County. OWTS can help to reduce the strain on municipal wastewater facilities and reduce the need for construction of new facilities in these remote areas. The OWTS policy helps to reduce an OWTS' impact on the environment where they are used.

San Diego Regional Municipal Storm Water Permit

An MS4 is defined as a conveyance or system of conveyances (e.g., municipal streets, catch basins, gutters, storm drains, etc.) used for collecting or conveying storm water that is not a combined sewer or connected to a publicly owned treatment network. The San Diego Municipal Storm Water Permit (Order R9-2013-0001) (as amended by Order Nos. R9-2015-0001 and R9-2015-0100) (Municipal Permit) regulates the conditions under which storm water and non-storm water discharges into and from MS4s are prohibited or limited (RWQCB 2018). The 18 cities, County government, San Diego County Regional Airport Authority, San Diego Unified Port District, Del Mar Fairgrounds, and the University of California, San Diego each owns or operates an MS4, through which it discharges storm water and non–storm water into waters of the United States within the San Diego region. These entities are the San Diego County Copermittees (Copermittees) who, along with the Orange County Copermittees, are subject to the requirements of the permit. The Caltrans storm water system is regulated separately under the Caltrans NPDES permit.

This permit requires each of the Copermittees to prepare a Jurisdictional Urban Runoff Management Program (JURMP) to control the contribution of pollutants to and the discharges from the MS4. Each of these JURMPs includes a component addressing construction activities, development planning, and existing development. The goal of the jurisdictional runoff management programs is to implement water quality improvement strategies and runoff management programs that effectively prohibit non-stormwater discharges into the Copermittees' MS4s and reduce pollutants in stormwater discharges from the Copermittees' MS4s to the maximum extent practicable. The MS4 permit, required by NPDES, requires the development of a hydromodification management plan (HMP). Pursuant to RWQCB Order 2007-0001, provision D.1.g, HMPs shall be prepared with the purpose of managing increases in runoff discharge rates and durations from specific projects. Regulations require site design to account for hydrology and drainage studies are required for projects with significant increases in impervious surfaces. Projects are discouraged from diverting or increasing flows that cross a site. Larger projects (those with 50 acres of disturbance or greater) are subject to hydromodification requirements and must develop a project-level HMP.

In accordance with the provisions of the Municipal Permit, the County of San Diego developed the *County of San Diego BMP Design Manual* (County of San Diego 2020a). The *County of San Diego BMP Design Manual* establishes a series of source control, site design, and treatment control best management practices (BMPs) that are to be implemented by all priority development projects (PDPs). PDPs include new development; redevelopment projects that create, add, or replace 5,000 square feet; and pollutant-generating projects. A PDP should refer to the local agency that has jurisdiction for the project for guidance on the source control, site design, and treatment control BMPs for stormwater pollutants. All future projects implementing the proposed Plan must adhere to these regulations.

AB 341

Legislation enacted in 2011 (AB 341, Chesbro, Chapter 476, Public Resources Code Section 42926[a]) made a legislative declaration that it is the policy goal of the State of California that not less than 75% of solid waste generated be source reduced, recycled, or composted by the year 2020. AB 341 also requires the provision of recycling service to commercial facilities that generate 4 cubic yards or more of solid waste per week and to multifamily facilities with five or more units.

Integrated Waste Management Act of 1989 (AB 939) and SB 1016

AB 939 (Chapter 1095, Statutes of 1989) requires each city and county in California to develop integrated waste management plans (IWMPs) to divert 25% of its waste stream by 1995 and 50% by 2000, with the base year set as 1990. The goal of AB 939 is to reduce dependence on landfills for waste disposal. The act established a hierarchy of priority for waste management: (1) source reduction (waste prevention), to reduce the amount of waste generated at its source; (2) recycling (or reuse) and composting; (3) transformation; and (4) disposal by landfilling. See below for a discussion of the IWMP for the San Diego region.

The passage of SB 1016 amended AB 939 to modernize how waste diversion is measured and enforced. Rather than relying solely on estimated diversion percentages, SB 1016 introduced a per capita disposal measurement system and evaluates how much waste is disposed of per person per day in each jurisdiction. This approach provides a more consistent and performance-based metric for assessing local waste reduction progress.

AB 1826

AB 1826 Chesbro (Chapter 727, Statutes of 2014) requires businesses, including state agencies, to recycle their organic waste on and after April 1, 2016, depending on the amount of organic waste they generate per week. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste. For businesses that generate 8 or more cubic yards of organic waste per week, this requirement began on April 1, 2016, while those that generate 4 cubic yards of organic waste per week must have had an organic waste recycling program in place beginning January 1, 2017. The requirement becomes more stringent in the following years. Multifamily properties are regulated but are only required to divert green waste and nonhazardous wood waste. This law also requires local jurisdictions across the state to implement an organic waste recycling program to divert organic waste generated by businesses, including certain multifamily residential dwellings, as described above, starting on January 1, 2016. In September 2020, CalRecycle extended the organic waste recycling requirements to businesses that generate 2 cubic yards or more of commercial solid waste (total trash, recyclables, and organics) per week.

AB 2396

As of January 1, 2017, pursuant to AB 2396 (McCarty, Chapter 466, Statutes of 2016), each state agency is required to include in its existing annual report to CalRecycle specified information on the state agency's compliance with mandatory commercial recycling requirements, pursuant to AB 341, and mandatory commercial organics recycling requirements, pursuant to AB 1826.

AB 2812

Effective July 1, 2018, pursuant to AB 2812 (Gordon, Chapter 530, Statutes of 2016), state agencies must provide adequate recycling and organics recycling containers to collect waste generated. Containers should be placed adjacent to trash containers and be visible, easily accessible, and clearly marked.

CalRecycle Regulations

CalRecycle regulations pertaining to nonhazardous waste management in California include minimum standards for solid waste handling and disposal; regulatory requirements for composting operations; standards for handling and disposal of asbestos-containing waste; resource conservation programs; enforcement of solid waste standards and administration of solid waste facility permits; permitting of waste tire facilities and waste tire hauler registration; special waste standards; used oil recycling program; electronic waste recovery and recycling; planning

guidelines and procedures for preparing, revising, and amending countywide IWMPs; and solid waste cleanup program (14 CCR Division 7).

CALGreen Construction Waste Diversion

The California Green Building Standards Code (CALGreen) (24 CCR Part 11) mandates locally permitted new residential and nonresidential building construction, demolition and certain additions and alteration projects to recycle or salvage for reuse a minimum 65% of the nonhazardous construction and demolition waste or meet a local C&D waste management ordinance, whichever is more stringent.

Caltrans Highway Design Manual

The Caltrans *Highway Design Manual* was developed to be a set of policies and procedures to carry out the highway design functions of Caltrans. While this manual does not instate a legal standard, it does provide guidance and uniform standards related to design and construction of Caltrans facilities. These standards include consideration of runoff and controlling it through hydraulic design of drainage features (Caltrans 2020).

California Code of Regulations

Title 5, Division 10

Division 10 of Title 5 of the CCR governs all aspects of education within the state.

Title 8, Sections 1270 and 6773

In accordance with the CCR, Title 8, Sections 1270, "Fire Prevention," and 6773, "Fire Protection and Fire Equipment," the California Occupational Safety and Health Administration has established minimum standards for fire suppression and emergency medical services. The standards consist of, but are not limited to, guidelines on the handling of highly combustible materials, fire hosing sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance, and use of all firefighting and emergency medical equipment.

Title 13, Division 2

Division 2 of Title 13 of the CCR governs the operations of California Highway Patrol.

Title 22, Division 4

Wastewater reclamation in California is regulated under CCR Title 22, Division 4. The intent of these regulations is to ensure protection of public health associated with the use of reclaimed water. The regulations establish acceptable levels of constituents in reclaimed water for a range of uses and prescribe means for assurance of reliability in the production of reclaimed water. The State Water Resources Control Board, Division of Drinking Water (formerly under the Department of Health Services) has jurisdiction over the distribution of reclaimed wastewater and the enforcement of Title 22 regulations. The applicable RWQCB is responsible for issuing waste discharge requirements (including discharge prohibitions, monitoring, and reporting programs).

REGIONAL LOCAL LAWS, REGULATIONS, PLANS, AND POLICIES

County of San Diego Fire Protection Ordinance No. 10172

The Fire Protection Ordinance No. 10172 ratified the 2011 Consolidated Fire Code for the 16 FPDs in the unincorporated county. Each FPD can modify the code based on specific needs for their jurisdiction. The County Fire Code applies to both ministerial and discretionary projects and both new and repair projects. The County Fire Code is amended every 3 years in conjunction with the revised California Building Standards Code.

County of San Diego Sewer System Management Plan

The County of San Diego developed a sewer system management plan (SSMP) to document management of their wastewater collection system (County of San Diego 2015). The SSMP provides a summary of the action plan

implemented to comply with the sanitary sewer system requirements imposed by the WDRs and other governing agencies. It includes a description of the activities and procedures that personnel follow to implement the various programs encompassed in the overall efforts to efficiently manage, operate, and maintain the sanitary sewer system and facilitate the reduction and potential elimination of SSOs. The goals of the SSMP include the following:

- minimizing the frequency and impact of SSOs
- effectively and efficiently mitigating the impacts of SSOs should they occur
- providing adequate sewer capacity to convey peak flows
- maintaining and improving the condition of the collection system infrastructure to provide continual reliable service
- engaging and educating the public regarding programs and issues related to the wastewater collection system.

San Diego Integrated Waste Management Plan

The County of San Diego prepares the IWMP for the San Diego region. The IWMP includes the following elements: Source Reduction and Recycling, Household Hazardous Waste, Non-Disposal Facility, and Countywide Siting. The Countywide Siting Element must demonstrate at least 15 years of remaining disposal capacity. It includes various strategies to demonstrate the remaining capacity, such as existing, proposed, and tentative landfills or landfill expansions; increased diversion efforts; and the export of solid waste disposal. In the San Diego region, the Countywide Siting Element must be updated every 5 years and must be adopted by the County Board of Supervisors and a majority of the cities within San Diego County. A 5-year review of the Countywide IWMP was completed in 2022, which determined that updates to the Countywide Summary Plan or the Countywide Siting Element planning documents were not warranted (County of San Diego 2022). Under the law, SANDAG is designated as the region's Integrated Waste Management Local Task Force responsible for advising and assisting the cities and County with certain aspects of compliance with AB 939, discussed above.

California PRC, Sections 41730 et seq. require every California city and county to prepare and adopt a Non-Disposal Facility Element for all new non-disposal facilities, and any expansions of existing non-disposal facilities, that will be needed to implement local Source Reduction and Recycling Elements (SRREs). A non-disposal facility is defined as any solid waste facility required to obtain a state solid waste facility permit, except a disposal facility or a transformation facility (PRC Section 40151). The April 2025 update describes the current non-disposal facility system of the unincorporated San Diego County consisting of MRF's, transfer stations, rural transfer stations, organic processors and construction, demolition and inert processing recycling facilities.

Solid Waste Reduction Plans

A number of jurisdictions within the San Diego region have developed solid waste reduction plans that designate waste reduction targets. For example, the City of San Diego Environmental Services Department has developed a zero-waste plan for the City of San Diego that is designed to divert waste from landfill disposal. The plan calls for 75% diversion by 2020 and 90% diversion by 2035, and for zero waste to be disposed of in landfills by 2040 (City of San Diego 2015). One of the goals of the plan is to promote local policies and ordinances as well as legislation at the state level that encourages manufacturers, consumers, and waste producers to be responsible for waste. The County of San Diego developed a strategic plan to reduce waste (County of San Diego 2017), with approved updates to the Non-Exclusive Franchise Agreement for Discarded Materials Management and Solid Waste Ordinance, which will help the County achieve its sustainability goals of progressively diverting solid waste from landfills and achieving an 80% waste diversion by 2030, and align with state laws, AB 1826 and SB 1383 (County of San Diego 2020b, County of San Diego 2021b). The County updated its Solid Waste Ordinance in 2021 as a response to the state's updated waste diversion goals, such as the AB 1826 regulations. Other jurisdictions, such as the City of Encinitas, have incorporated goals to develop waste reduction strategies into climate action plans (City of Encinitas 2024). In response to CALGreen C&D diversion mandates, local jurisdictions have also adopted C&D ordinances.

County and City General Plans

The County and cities' general plans establish policies for a number of topics relevant to public services and utilities, including fire prevention, law enforcement, schools, libraries, parks and recreational facilities, solid waste, storm water, and sewer infrastructure. General plan policies related to public services and utilities include implementation of funding and management strategies for public infrastructure projects, and planning policies to identify demand for new facilities and their design and construction. Policies related to police and fire-rescue can include identification of response times or other staffing goals, and characterization of standards for facilities and equipment. Beyond its General Plan, the County has developed a Community Trails Master Plan and implements its Parkland Dedication Ordinance (Chapter 1, Sections 810.101 et seq.) to plan for and fund park and recreation expansions in conjunction with population growth (County of San Diego 2021c). Other jurisdictions in the county have also conducted master planning to identify future park and recreation needs and expansion opportunities. In 2017, the California Governor's Office of Planning and Research completed the first comprehensive update to the General Plan Guidelines since 2003 (LCI 2017). The Governor's Office of Planning and Research was renamed the Governor's Office of Land Use and Climate Innovation effective July 1, 2024, under SB 164. One of the major changes includes an expanded section addressing the need for additional recycling, anaerobic digestion, composting, and remanufacturing facilities in the land use element of general plans.

Standard Urban Storm Water Mitigation Plan

Standard Urban Stormwater Mitigation Plan (SUSMP) requirements, which focused on project design requirements and related post-construction requirements, not on the construction process itself, in the San Diego region have been phased out and replaced by updated stormwater design standards. As of February 26, 2016, the County of San Diego requires new development projects to comply with its BMP Design Manual, which aligns with the Regional MS4 Permit (Order No. R9-2013-0001, as amended).

Hydromodification Management Plan

To address the effects of increased runoff from new development on stream channel stability and water quality, the County of San Diego developed a Hydromodification Management Plan (HMP) in compliance with San Diego RWQCB Order R9-2007-0001. The HMP applies to Priority Development Projects and establishes performance standards to manage changes in runoff flow rates and durations that could lead to erosion, sediment pollution, or degradation of stream habitat. The County of San Diego, along with other Copermittees, was required to implement the HMP by January 14, 2011, and to integrate its provisions into its Standard Urban Stormwater Mitigation Plan (SUSMP) for local compliance.

Low Impact Development Handbook

In 2014, the County of San Diego Department of Public Works published its Low Impact Development (LID) Handbook to provide technical guidance for implementing post-construction stormwater management consistent with the Regional MS4 Permit and the County's BMP Design Manual. The LID Handbook establishes a design hierarchy emphasizing runoff prevention and on-site management through distributed stormwater controls. The handbook assists project applicants, planners, and engineers in meeting hydromodification and water quality standards by integrating LID principles into site planning, thereby protecting downstream waters and reducing infrastructure strain.

4.15.3 Significance Criteria

Appendix G of the CEQA Guidelines provides criteria for determining the significance of a project's environmental impacts in the form of initial study checklist questions. Unless otherwise noted, the significance criteria specifically developed for this EIR are based on the checklist questions that address the criteria in Appendix G. In some cases, SANDAG has combined checklist questions, edited their wording, or changed their location in the document in an effort to develop significance criteria that reflect the programmatic level of analysis in this EIR and the unique characteristics of the proposed Plan.

Checklist questions for public services and utilities are included in three sections of the CEQA Guidelines Appendix G checklist: Public Services (XIV), Recreation (VXI), and Utilities and Service Systems (XIX). For purposes of this EIR, the Appendix G questions have been combined and modified. Specifically, Appendix G Section XV, Public Services, question (a), and Section XVI, Recreation, question (b) have been combined into PS-1. Section XVI, Recreation, question (a) is included as REC-1. Section XIX, Utilities and Service Systems, questions (a) and (c) are combined in U-1. Section XIX, Utilities and Service Systems, questions (d) and (e) are combined in U-2. Section XIX, Utilities and Service Systems, question (b) is included in Section 4.18, "Water Supply."

Implementation of the proposed Plan would have a significant public services and utilities impact if it would:

- **PS-1.** Result in substantial adverse physical impacts associated with the provision of or need for new or physically altered (i.e., expanded) public facilities, in order to maintain adequate fire and police protection, emergency services, schools, libraries, and recreation facilities.
- **REC-1.** Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
- **U-1.** Result in the expansion, relocation, or construction of wastewater collection and treatment, storm water drainage, electric power, natural gas, or telecommunications facilities to adequately meet projected capacity needs, the construction of which could cause significant environmental impacts.
- **U-2.** Generate solid waste in excess of state or local standards or in excess of the capacity of local infrastructure; impair the attainment of solid waste reduction goals; or fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

The analysis discloses impacts to public services, recreation, and utilities. There is insufficient evidence to support a meaningful analysis of how the proposed Plan's public services, recreation, and utilities impacts would be worsened by climate change. Therefore, a climate change analysis for public services, recreation, and utilities impacts is not included in this section.

4.15.4 Environmental Impacts and Mitigation Measures

PS-1 RESULT IN SUBSTANTIAL ADVERSE PHYSICAL IMPACTS ASSOCIATED WITH THE PROVISION OF OR NEED FOR NEW OR PHYSICALLY ALTERED (I.E., EXPANDED) PUBLIC FACILITIES, IN ORDER TO MAINTAIN ADEQUATE FIRE AND POLICE PROTECTION, EMERGENCY SERVICES, SCHOOLS, LIBRARIES, AND RECREATION FACILITIES.

Analysis Methodology

This section analyzes impacts associated with the provision of or need for new or physically altered public facilities in order to maintain adequate public services under the proposed Plan. To maintain adequate service levels, facilities may need to expand and implement improvements to accommodate increased demand and comply with the County of San Diego's General Plan facilities standards (County of San Diego 2011). A significant impact would occur if forecasted regional growth and land use change or planned transportation network improvements required construction or expansion of facilities to maintain adequate levels of service for fire and police protection, emergency services, schools, libraries, and recreation facilities that would result in adverse physical impacts. Impacts of construction activities for new or expanded facilities are analyzed as well. Additional information about impacts on fire protection related to wildfire is included in Section 4.19, "Wildfire."

Impact Analysis

2035

Regional Growth and Land Use Change

As shown in Table 2-1, in Section 2.0, "Project Description," of this Draft EIR, from 2022 to 2035, the region is forecasted have an increase of 117,056 people (4%), 137,242 housing units (11%), and 67,297 jobs (4%). The 2035

regional SCS land use pattern is shown in Figure 2-4. Approximately 93.3% of the forecasted regional population increases between 2022 and 2035 are in the cities of San Diego (51.3%), Chula Vista (26.1%), and San Marcos (15.8%). Those same three jurisdictions would accommodate approximately 71.4% of new housing units in the region between 2022 and 2035, while the cities of San Diego, San Marcos, and Oceanside would accommodate more than 69.5% of new jobs in the region between 2022 and 2035. In these cities, higher levels of public services would be needed, while demand for public services would increase throughout the region in response to forecasted growth and increased risk from wildfires, as discussed in Section 4.19. In areas of job or housing growth, new or expanded facilities, such as police and fire stations, would be needed to protect the new infrastructure and population, while the increased population in developed areas would require both new facilities and physical expansion of existing facilities. Where growth occurs outside of existing service areas, response times to those areas would be longer and would be out of compliance with service standards unless new or expanded facilities are constructed.

According to forecasted population and housing unit growth, by 2035, schools, libraries, and recreational facilities would also experience facility deficiencies and would require new or expanded facilities to maintain current levels of service as the population increases. As the population grows, use of these facilities would increase. Schools and libraries may become overcrowded, and recreation areas may become overused and degraded if no new or expanded facilities are constructed. As a result, these facilities would not meet the County of San Diego's standard to maintain adequate service levels (County of San Diego 2011). The need for these facilities would be concentrated in residential areas because demand for these public services is driven by population growth, while demand for fire and police protection facilities and emergency services is created by both residential and nonresidential land use types.

Throughout the San Diego region, the construction of new public facilities or expansion of existing public facilities would likely be needed to maintain existing (2025) service levels for fire protection, police protection, emergency services, schools, libraries, and recreational facilities in the year 2035. Individual service providers are responsible for identifying service deficiencies based upon their adopted performance measures or services standards for determining the adequacy of existing public services and deciding when and where to expand existing facilities or provide new facilities to maintain adequate public services. Payment of school fees, as required by SB 50 for all new residential projects, would fully mitigate school impacts for a portion of the population and housing growth projected in 2035, but new or expanded schools still may be needed. Other public facilities or expansions are funded through Facilities Benefit Assessment fees, Development Impact Fees, Mello Roos fees, and other public funding mechanisms assessed at the time development projects are approved.

The provision of new facilities or expansion of existing governmental facilities would result in short-term construction-related impacts and long-term operational impacts, for resource areas such as air quality, noise, and traffic, among others. Construction-related and long-term operational impacts are typically controllable and avoided or substantially lessened by mitigation measures adopted by the implementing agency, including adherence to existing regulations and BMPs. Because details are not known about timing, location, and other project-specific information for new or expanded facilities, it cannot be guaranteed that impacts from the construction and operation of new or physically altered governmental facilities would be less than significant for all projects. Therefore, regional growth and land use change would result in a significant impact.

Transportation Network Improvements and Programs

Major transportation network improvements by 2035 include new Managed Lanes and Managed Lane connectors on SR 15, SR 52, SR 78, SR 125, I-5, I-15, and I-805. The proposed Plan also includes Reversible Managed Lane improvements on SR 75, improvements to rural corridors on SR 67, SR 76, SR 79, SR 94, and I-8, as well as interchange and arterial operational improvements on SR 94 and SR 125. In addition, the proposed Plan includes increased roadway and transit connections to the United States–Mexico border, as well as tolling equipment and Regional Border Management System investments on SR 11. Upgrades at certain locations on the Los Angeles–San Diego–San Luis Obispo (LOSSAN) Rail Corridor would be implemented during this period. Other major network improvements include grade separations at certain locations on the SPRINTER, Green line, Blue Line, and Orange Line. Double-tracking is also proposed on the SPRINTER. See Tables 2-7 through 2-10 for a full list of proposed projects by subregion.

New transportation network improvements and programs, such as additions to existing highways, rail corridors, or local roads located in established communities, would generally require little to no increase in police and fire protection and emergency services, and would not cause deterioration of the facilities that provide police, fire, and emergency services compared to existing (2025) conditions. Construction of transportation network improvements would maintain emergency access to construction work sites and businesses, schools, hospitals, and medical facilities near construction sites. All construction activities, including roadway closures, would be coordinated with police, fire protection, and emergency services to prevent service delays or disruptions. The operation of the transportation network improvements and programs would not increase use of fire, emergency, or police services due to increased accidents, injuries, or collisions, because improvements would be required to conform to the design standards of the public agency responsible for implementation in order to minimize hazardous conflicts and conditions that could contribute to collisions and other safety hazards, as discussed in additional detail in Section 4.16, "Transportation." Transit service expansions would introduce new facilities, such as stations and Park & Ride facilities, which would require police, fire, and emergency service protection; however, the proposed Plan would not significantly affect response times or exceed the capacity of the local service providers. The project, by itself, would not preclude the need to improve public facilities from meeting their service goals and would not require the construction of new or expanded public facilities. Therefore, the need for fire, emergency, and police services and facilities would not substantially increase as a result of planned transportation network improvements and programs.

As a result, the construction and operation of transportation network improvements would require minor or no use of public services or facilities. Demand for public services and facilities is typically driven by new population, housing, and job growth as described above, and not by transportation network improvements or programs. Therefore, the construction and operation of transportation improvements and programs would not increase demand for schools, libraries, or recreational facilities such that new or physically altered facilities would be required in order to maintain adequate levels of service.

Between 2022 and 2035, additional transportation network improvements and programs are proposed in areas throughout the region that are currently served by different public service providers. However, as described above, none of the proposed transportation network improvements and programs would create new demand for public services beyond the level of demand created by new regional growth. Similarly, the transportation network improvements or programs would not create new demand for police or fire protection because that demand is driven by regional growth rather than transportation network improvements. Therefore, transportation network improvements and programs would have a less than significant impact.

2035 Conclusion

Implementation of regional growth and land use changes, but not transportation network improvements and programs, would result in substantial adverse physical impacts associated with the construction of new or expanded public facilities. Therefore, this impact (PS-1) in the year 2035 is significant.

2050

Regional Growth and Land Use Change

As shown in Table 2-1 in Section 2.0 "Project Description," of this Draft EIR, from 2036 to 2050, the region is forecasted to decrease by 4,112 people (-0.1%), increase by 65,577 housing units (4.8%), and increase by 103,460 jobs (6.2%). The 2050 regional SCS land use pattern is shown in Figure 2-5. The majority of the forecasted regional population decrease between 2036 and 2050 is attributed to the unincorporated jurisdictions, the City of Carlsbad, and the City of El Cajon. Approximately 78.8% of new housing units would be developed in the City of San Diego (51.6%), City of Chula Vista (17.1%), and unincorporated jurisdictions. Similarly, these same three jurisdictions would accommodate approximately 70.3% of new jobs between 2036 and 2050. In these cities, higher levels of public services would be needed, while demand for public services would increase throughout the region in response to forecasted growth and increased risk from wildfires, as discussed in Section 4.19, "Wildfire."

While some areas would experience a higher percent increase than others, there would be additional demand for public services throughout the region. In areas of new growth, where development is expanding into previously

undeveloped or rural land, existing infrastructure may not have been designed to meet the increased demand associated with population growth. In these areas, new facilities, such as police and fire stations, would be needed to protect the new infrastructure and population, while the increased population in developed areas would require both new facilities and physical expansion of existing facilities. Where growth occurs outside of existing service areas, response times to those areas would be longer and would be out of compliance with service standards unless new or expanded facilities are constructed.

The provision of new facilities or expansion of existing governmental facilities would result in short-term construction-related impacts and long-term operational impacts on resource areas such as air quality, noise, and traffic, among others. Construction-related and long-term operational impacts are typically controllable and avoided or substantially lessened by mitigation measures adopted by the implementing agency, including adherence to existing regulations and BMPs. Because details are not known about timing, location, and other project-specific information for new or expanded facilities, it cannot be guaranteed that impacts from the construction and operation of new or physically altered governmental facilities would be less than significant for all projects. Therefore, regional growth and land use change would result in a significant impact.

Transportation Network Improvements and Programs

Major transportation network improvements by 2050 include new Managed Lanes and Managed Lane Connectors on SR 52, SR 56, SR 75, SR 94, SR 125, SR 163, I-15, and I-805, several of which will be a continuation of improvements from 2035. In addition, the proposed Plan includes increased roadway and transit connections to the United States–Mexico border, as well as expansion of and improvements to existing port of entry facilities. Upgrades at certain locations on the LOSSAN Rail Corridor would continue during this period. Grade separations on the SPRINTER, Blue Line, Green Line, and Orange Line, as well as double-tracking on the SPRINTER would also continue during this period.

Between 2036 and 2050, additional transportation network improvements and programs are proposed in areas throughout the region that are currently served by different public service providers. See Tables 2-7 through 2-10 for a full list of proposed projects by subregion. However, as is true in the 2035 analyses, none of the proposed transportation network improvements and programs would create new demand for public services beyond the level of demand created by new regional growth that would require new or physically altered (i.e., expanded) governmental facilities. Therefore, transportation network improvements and programs would have a less than significant impact.

2050 Conclusion

Implementation of regional growth and land use change, but not transportation network improvements and programs, would result in substantial adverse physical impacts associated with the construction of new or expanded public facilities. Therefore, this impact (PS-1) in the year 2050 is significant.

MITIGATION MEASURES

PS-1 RESULT IN SUBSTANTIAL ADVERSE PHYSICAL IMPACTS ASSOCIATED WITH THE PROVISION OF OR NEED FOR NEW OR PHYSICALLY ALTERED (I.E., EXPANDED) PUBLIC FACILITIES, IN ORDER TO MAINTAIN ADEQUATE FIRE AND POLICE PROTECTION, EMERGENCY SERVICES, SCHOOLS, LIBRARIES, AND RECREATION FACILITIES.

2035, 2050

PS-1 Implement Mitigation Measures for New/Expanded Public Service Facilities.

During planning, design, and project-level CEQA review of development of public facilities projects, the County of San Diego, cities, and other public service providers can and should implement mitigation measures to avoid or reduce significant environmental impacts associated with the construction of new or expanded public facilities. Mitigation measures should be implemented by public service providers directly responsible for the construction or expansion activities. Significant environmental impacts requiring mitigation may be identified in the following issue areas: agricultural and forestry resources; air quality; biological resources; cultural resources, greenhouse gas emissions; hydrology and water quality; noise and vibration; geology, soils, and paleontological resources;

transportation; tribal cultural resources; and water supply. Mitigation measures may be similar to those described in this EIR for construction of development projects and transportation network improvements.

SIGNIFICANCE AFTER MITIGATION

2035, 2050

Implementation of the proposed Plan would result in significant impacts associated with the construction or expansion of public facilities by 2035 and 2050 in order to maintain necessary service ratios and performance standards. Mitigation measure PS-1 would reduce the impacts of project-specific construction or expansion through project-level planning, design, and CEQA mitigation measures. However, it cannot be guaranteed that all future project-level impacts can be mitigated to a less-than-significant level. Therefore, this impact (PS-1) would remain significant and unavoidable.

REC-1 INCREASE THE USE OF EXISTING NEIGHBORHOOD AND REGIONAL PARKS OR OTHER RECREATIONAL FACILITIES SUCH THAT SUBSTANTIAL PHYSICAL DETERIORATION OF THE FACILITY WOULD OCCUR OR BE ACCELERATED.

Analysis Methodology

This section analyzes impacts associated with an increase in the use of parks and recreational facilities that would cause accelerated substantial deterioration under the proposed Plan. A significant impact would occur if forecasted regional growth and land use change or planned transportation network improvements and programs resulted in increased use of parks or other recreational facilities, in a manner that would result in or accelerate substantial physical deterioration of those facilities. To evaluate potential impacts, areas where regional growth and land use change are expected to occur and locations of planned transportation projects in 2035 and 2050 are compared to the 2022 baseline existing open space park lands (i.e., conserved lands) and recreational lands (i.e., parks) identified in Section 4.15.1, "Existing Conditions," to determine if implementation of the proposed Plan would accelerate or result in substantial physical deterioration of parks or other facilities.

Physical deterioration is likely to occur when parks and recreation facilities are overused. Overuse would likely result when a greater number of people are using the same number of parks and recreational facilities leading to the accelerated deterioration of existing facilities. Physical deterioration would also occur without the acquisition of new parks and recreational facilities or increased maintenance of existing parks and facilities or a decrease in land dedicated to open space or parkland use. However, local jurisdictions have the means to acquire, develop, and maintain parkland and recreation facilities in the future through the funding mechanisms described in Section 4.15.2, and through the laws, regulations, and local plans described in this section. Local jurisdictions have authority to acquire land or collect in-lieu fees to avoid a reduction in park acreage per capita pursuant to the Quimby Act (Government Code Section 66477).

Impact Analysis

2035

Regional Growth and Land Use Change

As shown in Table 2-1, in Section 2.0, "Project Description," of this Draft EIR, from 2022 to 2035, the region is forecasted have an increase of 117,056 people (4%), 137,242 housing units (11%), and 67,297 jobs (4%). The 2035 regional SCS land use pattern is shown in Figure 2-4. Approximately 93.3% of the forecasted regional population increases between 2022 and 2035 are in the cities of San Diego (51.3%), Chula Vista (26.1%), and San Marcos (15.8%). Those same three jurisdictions would accommodate approximately 71.4% of new housing units in the region between 2022 and 2035, while the cities of San Diego, San Marcos, and Oceanside would accommodate more than 69.5% of new jobs in the region between 2022 and 2035.

In each of the communities where growth would occur, park and recreation facilities would experience an increase in their use, which would accelerate the deterioration of the existing facilities. In addition, approximately 1,777 acres of open space parks and 160 acres of recreation lands would be displaced by development in various locations throughout the region as a result of 2035 regional growth and land use change (Figure 4.15-2). Park and recreation facility expansions would offset these impacts; however, communities throughout the region may not be able to keep up with the demand for park and recreational facilities proportionate to the projected increase in population demand. Compliance with the Quimby Act would require developers to set aside land, donate conservation easements, or pay fees for park improvements, which would partially offset the projected impacts because compliance with the Quimby Act does not fully mitigate all park and recreation impacts from new development. However, there is no assurance that future park and recreation facilities would be capable of adequately serving forecasted populations, and a physical deterioration of park and recreation facilities may occur or be accelerated by 2035. Therefore, this is a significant impact.

Transportation Network Improvements and Programs

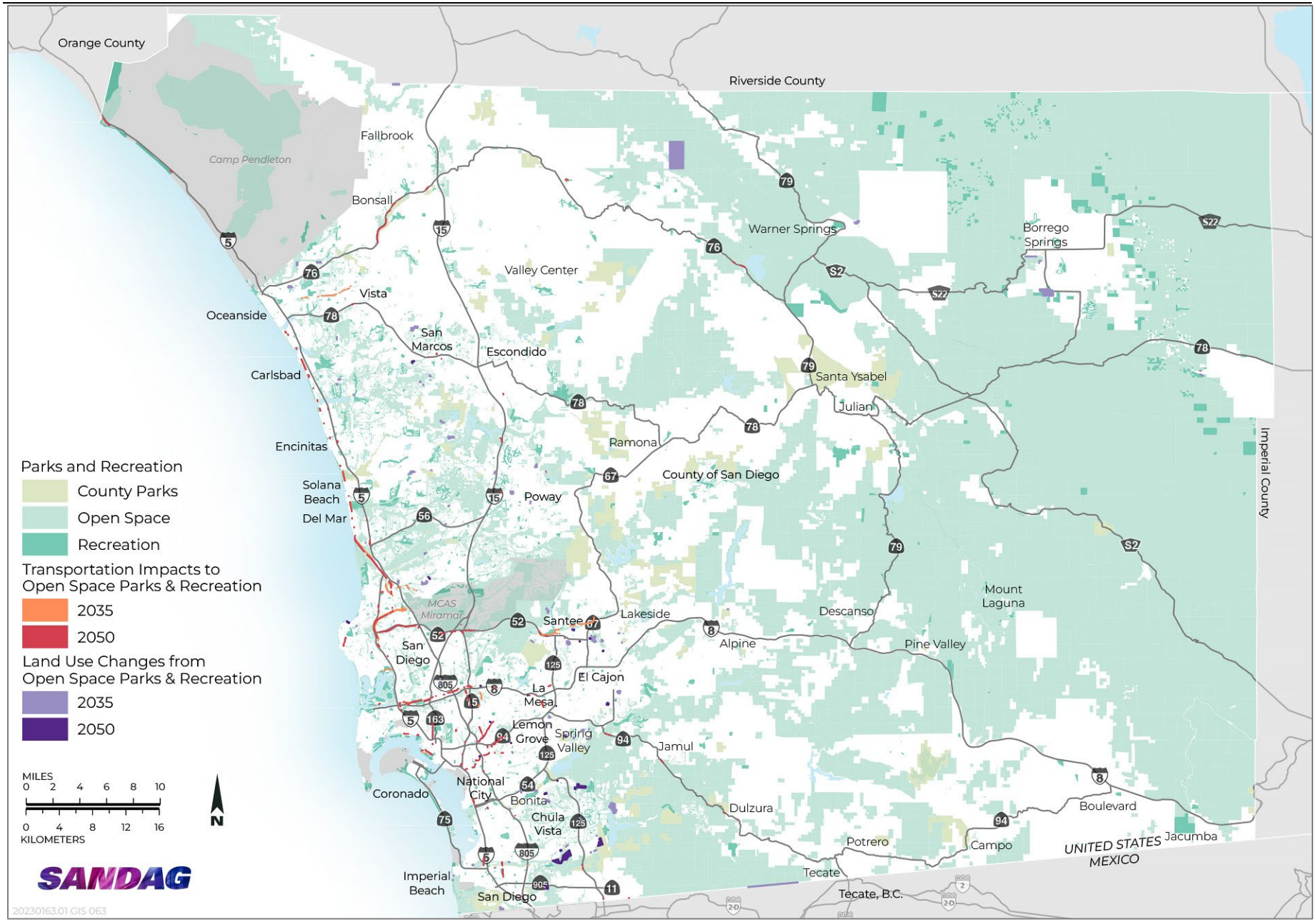
Major transportation network improvements by 2035 include new Managed Lanes and Managed Lane connectors on SR 15, SR 52, SR 78, SR 125, I-5, I-15, and I-805. The proposed Plan also includes Reversible Managed Lane improvements on SR 75, improvements to rural corridors on SR 67, SR 76, SR 79, SR 94, and I-8, as well as interchange and arterial operational improvements on SR 94 and SR 125. In addition, the proposed Plan includes increased roadway and transit connections to the United States–Mexico border, as well as tolling equipment and Regional Border Management System investments on SR 11. Upgrades at certain locations on the Los Angeles–San Diego–San Luis Obispo (LOSSAN) Rail Corridor would be implemented during this period. Other major network improvements include grade separations at certain locations on the SPRINTER, Green line, Blue Line, and Orange Line. Double-tracking is also proposed on the SPRINTER. See Tables 2-7 through 2-10 for a full list of proposed projects by subregion.

None of the transportation network improvements and programs proposed to be implemented by 2035 would create new demand for park and recreation facilities beyond the level of demand created by new regional growth, except where expanded transit would result in a minor redistribution of trips and increases in recreational facility usage near transit stations or stops. However, construction of transportation network improvements such as facility widenings may require the temporary closure or rerouting of bicycle facilities. All bike lane or path closures would be properly noticed and safely detoured.

Ultimately, active transportation improvements implemented by 2035 would expand recreation opportunities such as bicycle facilities in the region, resulting in adverse physical impacts. The future transportation network improvements implemented between 2025 and 2035 would directly remove 68 acres of open space parks and 26 acres of recreation lands (Figure 4.15-2). Therefore, transportation network improvements would not lead to a substantial increased demand on existing recreational facilities but would expand active transportation facilities and remove an additional 94 acres of land designated for such uses, putting more pressure on existing facilities and contributing to their physical deterioration given there would be no assurance that future park and recreation facilities would expand to offset the acreage removals. Therefore, this is a significant impact.

2035 Conclusion

Implementation of regional growth and land use changes by 2035 would result in increased demand for recreation facilities leading to accelerated deterioration, while regional growth and transportation network improvements combined would contribute to the expansion of active recreation facilities and the physical removal of 2,031 acres of open space park and recreation lands by 2035. Collectively, these impacts would result in the substantial physical deterioration of existing park and recreation facilities. Therefore, this impact (REC-1) in the year 2035 is significant.



Source: Data downloaded from SanGIS in 2025; adapted by Ascent in 2025.

Figure 4.15-2 Impacts to Recreational Facilities

2050

Regional Growth and Land Use Change

As shown in Table 2-1 in Section 2.0 "Project Description," of this Draft EIR, from 2036 to 2050, the region is forecasted to decrease by 4,112 people (-0.1%), increase by 65,577 housing units (4.8%), and increase by 103,460 jobs (6.2%). The 2050 regional SCS land use pattern is shown in Figure 2-5. The majority of the forecasted regional population decrease between 2036 and 2050 is attributed to the unincorporated jurisdictions, the City of Carlsbad, and the City of El Cajon. Approximately 78.8% of new housing units would be developed in the City of San Diego (51.6%), City of Chula Vista (17.1%), and unincorporated jurisdictions. Similarly, these same three jurisdictions would accommodate approximately 70.3% of new jobs between 2036 and 2050. In each of the communities where growth would occur, park and recreation facilities would experience an increase in use, which would accelerate the deterioration of the existing facilities. In addition, approximately 346 additional acres of open space parks and 65 additional acres of recreation lands would be directly removed by development in various locations throughout the region as a result of regional growth and land use change between 2036 and 2050 (Figure 4.15-2). When combined with the conversion of open space parks and recreation lands by 2035, a total removal of 2,123 acres of open space parks and 225 acres of recreation lands would be expected by 2050 under the proposed Plan. Recreation facility expansions would offset these impacts; however, communities throughout the region may not be able to keep up with the demand for park and recreational facilities proportionate to the projected increase in population demand. Compliance with the Quimby Act would require developers set aside land, donate conservation easements, or pay fees for park improvements, which would partially offset the projected impacts because compliance with the Quimby Act does not fully mitigate all park and recreation impacts from new development. However, there is no assurance that future park and recreation facilities would be capable of adequately serving forecasted populations, and a physical deterioration of park and recreation facilities may occur or be accelerated by 2050. Therefore, this is a significant impact.

Transportation Network Improvements and Programs

Major transportation network improvements by 2050 include new Managed Lanes and Managed Lane Connectors on SR 52, SR 56, SR 75, SR 94, SR 125, SR 163, I-15, and I-805, several of which will be a continuation of improvements from 2035. In addition, the proposed Plan includes increased roadway and transit connections to the United States–Mexico border, as well as expansion of and improvements to existing port of entry facilities, which will continue during this period. Upgrades at certain locations on the LOSSAN Rail Corridor would continue during this period. Grade separations on the SPRINTER, Blue Line, Green Line, and Orange Line, as well as double-tracking on the SPRINTER would also continue during this period. See Tables 2-7 through 2-10 for a full list of proposed projects by subregion.

Between 2036 and 2050, additional transportation network improvements and programs are proposed in areas throughout the region. Most of the transportation network improvements would affect existing transportation facilities, such as Blue, Orange, and Green Trolley line rail grade separations; additional Managed Lanes along existing freeways and highways; improvements to regional arterials; and active transportation projects. Other planned transportation network improvements including COASTER commuter train lines 582, and 398 extensions, Streetcar Light Rail lines, and the SPRINTER extension would require acquisition of new rights-of-way.

However, as is true in the analyses above, none of the proposed 2050 transportation network improvements and programs would create new demand for park and recreation facilities beyond the level of demand created by new regional growth, with the exception of the minor redistribution of trips that may lead to increased usage of recreation facilities near transit stations and stops. Construction of the transportation network improvements, such as facility widening, may also require the temporary closure or rerouting of bicycle facilities. All bike lane or path closures would be properly noticed and safely detoured. In addition, active transportation improvements would expand recreation opportunities, such as bicycle facilities, in the region resulting in adverse physical impacts. However, the future transportation network improvements would displace 67 additional acres of open space parks and 40 additional acres of recreation lands, which, when added to the removal impacts occurring by 2035, result in a total removal of 135 acres of open space parks and 66 acres of recreation lands by 2050 (Figure 4.15-2).

Therefore, transportation network improvements would not lead to the increased use of recreational facilities but would result in the construction of new active transportation facilities and would remove land designated for such uses, putting more pressure on existing facilities and contributing to their physical deterioration given there would be no assurance that future park and recreation facilities would expand to offset the acreage removals. Therefore, this would be a significant impact by 2050.

2050 Conclusion

Implementation of regional growth and land use changes by 2050 would result in increased demand for recreation facilities leading to accelerated deterioration, while regional growth and transportation network improvements combined would contribute to the expansion of active recreation facilities and the physical removal of an additional 518 acres of open space park and recreation lands by 2050. Collectively, these impacts would result in the substantial physical deterioration of existing park and recreation facilities. Therefore, this impact (REC-1) in the year 2050 would be significant.

MITIGATION MEASURES

REC-1 INCREASE THE USE OF EXISTING NEIGHBORHOOD AND REGIONAL PARKS OR OTHER RECREATIONAL FACILITIES SUCH THAT SUBSTANTIAL PHYSICAL DETERIORATION OF THE FACILITY WOULD OCCUR OR BE ACCELERATED.

2035, 2050

REC-1 Implement Mitigation Measures for Parks and other Recreational Facilities.

During planning, design, and project-level CEQA review of development projects and transportation network improvements and programs, the County of San Diego, cities, other public service providers, and other transportation project sponsors can and should, and SANDAG shall, implement mitigation measures to avoid or reduce substantial physical deterioration of parks or other recreational facilities. Mitigation measures could include expanding or improving existing recreation facilities to accommodate additional use or building new recreation facilities.

SIGNIFICANCE AFTER MITIGATION

2035, 2050

Implementation of mitigation measure REC-1 would reduce impacts related to the adverse physical impacts of facility expansions and deterioration of existing parkland and recreational facilities in 2035 and 2050, but not to a less-than-significant level. Local jurisdictions with inadequate parkland per capita would use state regulations and local plans and ordinances to acquire land and funding for the provision of new parkland as population growth occurs. However, it cannot be assured that adequate financial resources would be available to acquire the amount of parkland needed to meet forecasted population growth and offset losses that would occur a result of regional growth, land use changes, and transportation improvements. Therefore, this impact (REC-1) would remain significant and unavoidable.

U-1 RESULT IN THE EXPANSION, RELOCATION, OR CONSTRUCTION OF WASTEWATER COLLECTION AND TREATMENT, STORM WATER DRAINAGE, ELECTRIC POWER, NATURAL GAS, OR TELECOMMUNICATIONS FACILITIES TO ADEQUATELY MEET PROJECTED CAPACITY NEEDS, THE CONSTRUCTION OF WHICH COULD CAUSE SIGNIFICANT ENVIRONMENTAL IMPACTS.

Analysis Methodology

This section analyzes impacts associated with the provision of or need for new or physically altered utilities facilities to maintain adequate services under the proposed Plan (aside from water supply facilities, which are evaluated separately in Section 4.18, "Water Supply"). A significant impact would occur if forecasted regional

growth and land use change or planned transportation network improvements and programs required construction, expansion, or relocation of utilities facilities that would result in adverse physical impacts.

Impact Analysis

2035

Regional Growth and Land Use Change

As shown in Table 2-1, in Section 2.0, "Project Description," of this Draft EIR, from 2022 to 2035, the region is forecasted have an increase of 117,056 people (4%), 137,242 housing units (11%), and 67,297 jobs (4%). The 2035 regional SCS land use pattern is shown in Figure 2-4. Approximately 93.3% of the forecasted regional population increases between 2022 and 2035 are in the cities of San Diego (51.3%), Chula Vista (26.1%), and San Marcos (15.8%). Those same three jurisdictions would accommodate approximately 71.4% of new housing units in the region between 2022 and 2035, while the cities of San Diego, San Marcos, and Oceanside would accommodate more than 69.5% of new jobs in the region between 2022 and 2035. In these cities, higher demand for new utility infrastructure, upgraded systems or expansions would occur, while demand for utilities would also increase throughout the region in response to forecasted growth. In general, however, regional growth and land use change in urban areas would have less demand on utilities than in more rural areas that are not currently served by utility infrastructure because urban areas tend to have established utility infrastructure that can be more readily adapted to changes such as regional growth.

While population growth would result in an increase in the amount of wastewater generated, especially in the cities of San Diego, San Marcos, and Oceanside, the service providers responsible for operating the existing wastewater treatment plants outlined in Table 4.15-7 would have to maintain sufficient conveyance and treatment capacity to serve forecasted growth through 2035 in accordance with approved wastewater discharge requirements filed with SWRCB and local health ordinances. Development in existing communities would require expansion or upsizing of existing collection and treatment systems, while development in new areas would require installation of new collection and treatment systems. Development in rural residential areas would also require on-site wastewater treatment facilities, such as septic tanks.

Similarly, storm water drainage improvements would need to be constructed to serve new development and redeveloped areas to accommodate forecasted growth through 2035. Increases in impervious surfaces would increase storm water runoff, which would increase the volume or velocity of storm water flows, leading to flooding, scouring, erosion, and other drainage pattern alterations. Therefore, regional growth and land use change that results from implementation of the proposed Plan in 2035 would require the construction of new or expanded storm water drainage facilities to ensure adequate capacity for the conveyance of storm water. Development associated with the proposed Plan would have to comply with all existing regulations pertaining to drainage patterns (i.e., the local SUSMP and HMP). The storm water regulations include the requirement that post project storm water flows match the preproject flows for PDPs. When there is an increase in impervious area, this requirement would generally be achieved through the implementation of the appropriate BMPs described in the local SUSMP and HMP, and the *County Low Impact Development (LID) Handbook*. LID is an integrated site design methodology that uses small-scale detention and retention to minimize pollutants conveyed by runoff and to mimic pre project site hydrological conditions (County of San Diego Department of Public Works 2014). Furthermore, drainage systems would be upgraded and increased in size in areas determined by each MS4 operator to have inadequate conveyance capacity relative to new impervious surface to reduce impacts related to storm water runoff through their SUSMP or JURMP. Hydrologic impacts resulting from construction would be primarily addressed through compliance with the Construction General Permit as discussed in Section 4.10, "Hydrology and Water Quality."

Regional growth and land use change would increase demand for energy resources and require electricity or natural gas infrastructure relocations or improvements to serve development through 2035. As described in Section 4.6, "Energy," projected growth would trigger the need for new or expanded energy facilities, including power plants, distributed generation, electrical transmission and distribution infrastructure, and natural gas

facilities (e.g., storage, pipelines). Construction and operation of the facilities would have a range of impacts depending on the facility type, size, and location. Forecasted regional growth and land use change would primarily occur in or adjacent to areas that are already developed and that have electricity and natural gas infrastructure in place. Although this would reduce the need for construction of new facilities in other areas, the increases in demand for electricity and natural gas would result in upgrades of transmission lines, substations, and distribution and related facilities that already serve these areas to ensure that energy infrastructure adequately meets future needs. Telecommunications systems would also need to be constructed to serve new development and redeveloped areas associated with forecasted population growth and land use change through 2035. Demand for telecommunication infrastructure would require the construction of broadband cable lines, telephone lines, cellular towers, and other transmission devices. Similar to other utility infrastructure, development in existing communities would require expansion or upsizing of existing systems, while development in new areas would require installation of new systems.

Forecasted growth in 2035 in accordance with the proposed Plan would trigger the need for new or expanded wastewater treatment facilities and collection systems, storm water conveyance and treatment BMPs, electrical and natural gas facilities, and telecommunications infrastructure, which would result in short-term construction-related impacts and long-term operational impacts on resources such as air quality, noise, traffic, and water quality, among others. WDRs and existing regulations, as further described in Section 4.10, "Hydrology and Water Quality" would reduce water quality impacts of future utility construction projects. Construction-related and long-term operational impacts are typically controllable and avoided or substantially lessened by mitigation measures adopted by the implementing agency, including adherence to existing regulations and BMPs, such as those issued and enforced through SWRCB and the RWQCB. Because details are not known about timing, location, and other project-specific information for provision of new, relocated, or expanded utility systems, it cannot be guaranteed that impacts from the construction and operation of new or expanded facilities and collection systems would be less than significant for all projects. Therefore, regional growth and land use change would cause a significant impact.

Transportation Network Improvements and Programs

Major transportation network improvements by 2035 include new Managed Lanes and Managed Lane connectors on SR 15, SR 52, SR 78, SR 125, I-5, I-15, and I-805. The proposed Plan also includes Reversible Managed Lane improvements on SR 75, improvements to corridors on SR 67, SR 76, SR 79, SR 94, and I-8, as well as interchange and arterial operational improvements on SR 94 and SR 125. In addition, the proposed Plan includes increased roadway and transit connections to the United States–Mexico border, as well as tolling equipment and Regional Border Management System investments on SR 11. Upgrades at certain locations on the Los Angeles–San Diego–San Luis Obispo (LOSSAN) Rail Corridor would be implemented during this period. Other major network improvements include grade separations at certain locations on the SPRINTER, Green line, Blue Line, and Orange Line. Double-tracking is also proposed on the SPRINTER. See Tables 2-7 through 2-10 for a full list of proposed projects by subregion.

While most of the transportation improvements (e.g., highway, arterial, transit, and active transportation) would occur in already urbanized areas, some improvements would require new connections and expansions of utility infrastructure and convert vacant land to impervious surfaces, resulting in increased storm water flow volume and/or velocity. As described in the "Regulatory Setting" section in Section 4.10, "Hydrology and Water Quality," engineering standards, including the Caltrans *Highway Design Manual* and county requirements, would be followed for properly controlling and conveying surface runoff and surface waters when drainage modifications are necessary for project implementation. In addition, requirements in the Municipal Storm Water Permit (Order R9-2013-0001) require that PDPs maintain pre project hydrology under postconstruction operation. This means that additional runoff volumes and peak flow discharges from new impervious areas must be attenuated to pre project levels in order to maintain hydrological conditions and not exceed storm water conveyance capacities. One of the methods for achieving this is through the implementation of the LID, as discussed above.

However, new or expanded storm water drainage facilities would be required to support the transportation network improvements by the year 2035, and any increase in the volume of storm water generated would require storm water drainage facilities with sufficient capacity downstream in channels and other drainage outlets.

Additionally, changes to drainage patterns due to transportation improvements, as further discussed under Impact HWQ-2 in Section 4.10, would necessitate the construction of storm water drainage facilities in new places where the infrastructure has not been established to meet these needs.

A number of the transportation network improvements would require relocated or new electrical or natural gas infrastructure, such as the supporting infrastructure to the Complete Corridors (i.e., enhance connectivity, including managed lanes, connectors and direct access ramps for managed lanes, transportation technology and Smart Intersection Systems (SIS), and goods movement to be implemented on freeways, highways, and rural corridors), Flexible Fleets (i.e., regional rail; light rail; streetcar; a variety of bus options, including Rapid, express, local, local circulator, rural; and an Airport Transit Connection), and various transit station improvements, such as communications equipment, signalizing systems, and security lighting. The proposed Plan would also increase the number of electric vehicles throughout the region. Construction impacts associated with the installation of electricity and natural gas connections or the relocation of existing lines are expected to be confined to trenching within rights-of-way in order to place the lines below surface. Electrical and natural gas facilities required for the planned transportation network improvements would be constructed as part of the various network improvements. Because the demand for electrical energy and natural gas associated with the transportation network improvements in the proposed Plan would be a small fraction of the regional use, new energy facilities would not be necessary beyond the infrastructure needs associated with regional growth and land use change.

The provision of new, relocated, or expanded utility infrastructure in conjunction with the transportation network improvements in the proposed Plan in 2035 would result in short-term construction related impacts and long-term operational impacts on such resource areas as biological resources, cultural resources, and water quality, among others. These impacts would be anticipated as a result of storm water and drainage infrastructure put in place as part of the transportation network improvements. It is not anticipated that wastewater conveyance and treatment or telecommunication systems would need to be installed or expanded to serve the 2035 transportation network. A number of the transportation network improvements would require relocated or new electrical or natural gas infrastructure, such as transit station improvements. Construction-related and long-term operational impacts are typically controllable and avoided or substantially lessened by mitigation measures adopted by the implementing agency, including adherence to existing regulations and installation of BMPs. In addition, road improvement projects included in the project, such as La Media Road Improvements or Discovery Street Improvements, have included design components of utilities and drainages to meet capacity needs as result of the project. Because most details are not known about timing, location, and other project specific information for provision of new, relocated or expanded utility systems, it cannot be guaranteed that impacts from the construction and operation of such facilities would be less than significant for individual improvements. Therefore, transportation network improvements and programs would cause a less-than-significant impact on the demand for wastewater, electrical, natural gas, and telecommunications infrastructure and a significant impact related to storm water drainage facilities.

2035 Conclusion

Implementation of regional growth and land use change would result in substantial adverse physical impacts associated with the construction and operation of new, relocated or expanded utility infrastructure for wastewater, storm drain, electrical, natural gas, and telecommunications systems. Transportation network improvements and programs would cause a less-than-significant impact on wastewater, electrical, natural gas, and telecommunications infrastructure and a significant impact related to storm water drainage facilities. Therefore, the impact (U-1) by the year 2035 would be significant.

2050

Regional Growth and Land Use Change

As shown in Table 2-1 in Section 2.0 "Project Description," of this Draft EIR, from 2036 to 2050, the region is forecasted to decrease by 4,112 people (-0.1%), increase by 65,577 housing units (4.8%), and increase by 103,460 jobs (6.2%). The 2050 regional SCS land use pattern is shown in Figure 2-5. The majority of the forecasted regional population decrease between 2036 and 2050 is attributed to the unincorporated jurisdictions, the City of Carlsbad, and the City of El Cajon. Approximately 78.8% of new housing units would be developed in the City of San Diego

(51.6%), City of Chula Vista (17.1%), and unincorporated jurisdictions. Similarly, these same three jurisdictions would accommodate approximately 70.3% of new jobs between 2036 and 2050. In these cities, higher demand for new utility infrastructure, upgraded systems, or expansions would occur, while demand for utilities would also increase throughout the region in response to forecasted growth. In general, however, regional growth and land use change in urban areas would have less demand on utilities than in more rural areas that are not currently served by utility infrastructure.

Similar to impacts in the 2035 scenario, 2050 forecasted growth in accordance with the proposed Plan would trigger the need for new or expanded wastewater treatment facilities and collection systems, storm water conveyance and treatment BMPs, energy (i.e., electrical and natural gas) facilities, and telecommunications infrastructure, which would result in short-term construction-related impacts and long-term operational impacts on such resource areas as air quality, noise, traffic, and water quality, among others. WDRs and existing regulations, as further described in Section 4.10, "Hydrology and Water Quality," would reduce water quality impacts of future utility construction projects. Construction-related and long-term operational impacts are typically controllable and avoided or substantially reduced by mitigation measures adopted by the implementing agency, including adherence to existing regulations and BMPs, such as those issued and enforced through SWRCB and the RWQCB. Because details are not known about timing, location, and other project-specific information for provision of new or expanded utility systems, it cannot be guaranteed that impacts from the construction and operation of new or expanded facilities and collection systems would be less than significant for all projects. Therefore, regional growth and land use change would cause a significant impact.

Transportation Network Improvements and Programs

Major transportation network improvements by 2050 include new Managed Lanes and Managed Lane Connectors on SR 52, SR 56, SR 75, SR 94, SR 125, SR 163, I-15, and I-805, several of which will be a continuation of improvements from 2035. In addition, the proposed Plan includes increased roadway and transit connections to the United States–Mexico border, as well as expansion of and improvements to existing port of entry facilities, which will continue during this period. Upgrades at certain locations on the LOSSAN Rail Corridor would continue during this period. Grade separations on the SPRINTER, Blue Line, Green Line, and Orange Line, as well as double-tracking on the SPRINTER would also continue during this period. See Tables 2-7 through 2-10 for a full list of proposed projects by subregion.

The provision of new or expanded utility infrastructure from 2036 to 2050, in particular storm water drainage associated with the transportation network improvements in the proposed Plan, would result in short-term construction-related impacts and long-term operational impacts on such resource areas as biological resources, cultural resources, and water quality, among others. These impacts would be anticipated as a result of storm water and drainage infrastructure put in place as part of the transportation network improvements. It is not anticipated that wastewater conveyance and treatment or telecommunication systems would need to be installed or expanded to serve the 2050 transportation network. As in the 2035 analysis, construction-related and long-term operational impacts are typically controllable and avoided or substantially reduced by mitigation measures adopted by the implementing agency, including adherence to existing regulations and installation of BMPs. Because details are not known about timing, location, and other project-specific information for provision of new or expanded utility systems, it cannot be guaranteed that impacts from the construction and operation of such facilities would be less than significant for all projects. Therefore, transportation network improvements and programs would cause a less-than-significant impact on wastewater, electricity, natural gas, and telecommunications infrastructure and a significant impact related to storm water drainage facilities.

2050 Conclusion

Implementation of regional growth and land use change by 2050 would result in substantial adverse physical impacts associated with the construction and operation of new or expanded utility infrastructure for wastewater, storm drain, and telecommunications systems. Transportation network improvements and programs would cause a less-than-significant impact on wastewater, electricity, natural gas, and telecommunications infrastructure and a significant impact related to storm water drainage facilities. Therefore, the impact (U-1) by the year 2050 would be significant.

MITIGATION MEASURES

U-1 RESULT IN THE EXPANSION, RELOCATION, OR CONSTRUCTION OF WASTEWATER COLLECTION AND TREATMENT, STORM WATER DRAINAGE, ELECTRIC POWER, NATURAL GAS, OR TELECOMMUNICATIONS FACILITIES TO ADEQUATELY MEET PROJECTED CAPACITY NEEDS, THE CONSTRUCTION OF WHICH COULD CAUSE SIGNIFICANT ENVIRONMENTAL IMPACTS.

2035, 2050

U-1a Implement Mitigation Measures for New/Expanded Wastewater, Storm Water, Electrical, Natural Gas, and Telecommunications Facilities Associated with Development Projects.

During planning, design, and project-level CEQA review of development projects, the County of San Diego, cities, and other wastewater, storm water, and telecommunications management agencies can and should apply necessary mitigation measures to avoid or reduce significant environmental impacts associated with the construction or expansion of new or expanded facilities. Mitigation measures should be implemented by utilities management agencies directly responsible for the approval and construction of new or expanded facilities. Significant environmental impacts requiring mitigation may be identified in the following resource areas: air quality; biological resources; cultural resources; energy; greenhouse gas emissions; hydrology and water quality; noise and vibration; geology, soils, and paleontological resources; transportation; tribal cultural resources; and water supply. Mitigation measures may be similar to those described in this EIR for construction of development projects.

U-1b Implement Mitigation Measures for New/Expanded Storm Water Facilities Associated with Transportation Network Improvements.

During planning, design, and project-level CEQA review of transportation network improvements, SANDAG shall, and other transportation project sponsors can and should, be required to implement storm water BMPs during planning, design, project-level CEQA review, and project construction. Measures include, but are not limited to, implementation and construction of sand filters, bio strips, bioswales, detention basins, storage vaults, and infiltration basins, which would reduce pollutant runoff into the storm drain system.

SIGNIFICANCE AFTER MITIGATION

2035, 2050

Implementation of the proposed Plan would result in significant impacts associated with the construction or expansion of utility systems and facilities in 2035 and 2050 in order to serve areas where population growth and transportation network improvements are located. Mitigation measures U-1a and U-1b would reduce the impacts of project-specific construction or expansion through project-level planning, design, and CEQA mitigation measures. However, it cannot be guaranteed that all future project-level impacts can be mitigated to a less-than-significant level. Therefore, the impact (U-1) would remain significant and unavoidable.

U-2 GENERATE SOLID WASTE IN EXCESS OF STATE OR LOCAL STANDARDS OR IN EXCESS OF THE CAPACITY OF LOCAL INFRASTRUCTURE; IMPAIR THE ATTAINMENT OF SOLID WASTE REDUCTION GOALS; OR FAIL TO COMPLY WITH FEDERAL, STATE, AND LOCAL MANAGEMENT AND REDUCTION STATUTES AND REGULATIONS RELATED TO SOLID WASTE.

Analysis Methodology

This section analyzes whether the generation of solid waste associated with implementation of the proposed Plan would exceed the capacity of local infrastructure and services or fail to comply with statutes and regulations related to solid waste. A significant impact would occur if forecasted regional growth and land use change or planned transportation network improvements and programs either result in generation of solid waste that exceeded the capacity of landfills or caused a failure to comply with federal, State, or local goals or standards,

which include demonstrating at least 15 years of remaining disposal capacity in landfills and diverting an increasing percentage of waste streams over time (County of San Diego 2011). To evaluate potential impacts, expected increases in solid waste generation are compared to available permitted landfill capacity and applicable standards, waste reduction goals, and management statutes.

Impact Analysis

2035

Regional Growth and Land Use Change

As shown in Table 2-1, in Section 2.0, "Project Description," of this Draft EIR, from 2022 to 2035, the region is forecasted have an increase of 117,056 people (4%), 137,242 housing units (11%), and 67,297 jobs (4%). The 2035 regional SCS land use pattern is shown in Figure 2-4. Approximately 93.3% of the forecasted regional population increases between 2022 and 2035 are in the cities of San Diego (51.3%), Chula Vista (26.1%), and San Marcos (15.8%). Those same three jurisdictions would accommodate approximately 71.4% of new housing units in the region between 2022 and 2035, while the cities of San Diego, San Marcos, and Oceanside would accommodate more than 69.5% of new jobs in the region between 2022 and 2035.

Regional growth forecasted to occur between 2022 and 2035 would produce both C&D debris and municipal solid waste during operations. It is anticipated that the majority of construction-phase C&D debris would likely be diverted, while lower diversion rates are expected during operation of new developments. Existing programs, policies, and practices in place throughout the region would continue to reduce the rate of solid waste generation (amount per person or per employee) and divert a percentage of solid waste from landfills to recycling facilities. By 2035, Borrego Landfill and Sycamore Landfill would be the only permitted landfills with remaining disposal capacity as they are estimated to reach capacity and close by the years 2046 and 2042, respectively (CalRecycle 2024a). With the projected closure of the Miramar Landfill and Otay Landfill before 2035, the County and City could still demonstrate it has more than 15 years of permitted landfill capacity at the other facilities as required by the State's Integrated Waste Management Act. However, there may not be sufficient landfill capacity in the region to accommodate forecasted regional growth through 2035. As a result, despite waste management plans in place throughout the region focused on diverting an increasing percentage of waste from landfills, forecasted regional growth would generate solid waste at a level that would likely exceed the capacity of permitted solid waste disposal facilities in the region,. Regional growth and land use change would have a significant impact.

Transportation Network Improvements and Programs

Major transportation network improvements by 2035 include new Managed Lanes and Managed Lane connectors on SR 15, SR 52, SR 78, SR 125, I-5, I-15, and I-805. The proposed Plan also includes Reversible Managed Lane improvements on SR 75, improvements to corridors on SR 67, SR 76, SR 79, SR 94, and I-8, as well as interchange and arterial operational improvements on SR 94 and SR 125. In addition, the proposed Plan includes increased roadway and transit connections to the United States–Mexico border, as well as tolling equipment and Regional Border Management System investments on SR 11. Upgrades at certain locations on the LOSSAN Rail Corridor would be implemented during this period. Other major network improvements include grade separations at certain locations on the SPRINTER, Green line, Blue Line, and Orange Line. Double-tracking is also proposed on the SPRINTER. See Tables 2-7 through 2-10 for a full list of proposed projects by subregion.

Construction of transportation network improvements that would be implemented by the year 2035 would primarily generate C&D debris and a minimal amount of municipal solid waste (i.e., associated with construction workforce and transit station operations) While much of the C&D debris materials would be processed and diverted from landfills in accordance with recycling programs and policies, small quantities of municipal solid waste produced from these construction projects would end up in landfills. The need to dispose of waste as part of the transportation network improvements would contribute to reduced capacity of landfills in the region, which may not be sufficient to accommodate the region's waste disposal needs by 2035 because the landfill's capacity may not be able to sustain the amount of solid waste disposal generated by projects under the Plan. Therefore, transportation network improvements would generate solid waste at a level that would likely exceed the capacity

of permitted solid waste disposal facilities in the region and would require new or expanded solid waste disposal facilities. Transportation network improvements and programs would have a significant impact.

2035 Conclusion

Implementation of regional growth and land use change and transportation network improvements and programs in the proposed Plan by 2035 would generate solid waste and C&D debris that may not be accommodated by the regional landfills. Although the forecasted growth and network improvements would comply with programs, policies, and practices to reduce the rate of solid waste generation, this impact (U-2) in the year 2035 would be significant.

2050

Regional Growth and Land Use Change

As shown in Table 2-1 in Section 2.0 "Project Description," of this Draft EIR, from 2036 to 2050, the region is forecasted to decrease by 4,112 people (-0.1%), increase by 65,577 housing units (4.8%), and increase by 103,460 jobs (6.2%). The 2050 regional SCS land use pattern is shown in Figure 2-5. The majority of the forecasted regional population decrease between 2036 and 2050 is attributed to the unincorporated jurisdictions, the City of Carlsbad, and the City of El Cajon. Approximately 78.8% of new housing units would be developed in the City of San Diego (51.6%), City of Chula Vista (17.1%), and unincorporated jurisdictions. Similarly, these same three jurisdictions would accommodate approximately 70.3% of new jobs between 2036 and 2050. Regional growth forecasted to occur between 2036 and 2050 would produce both C&D debris and municipal solid waste during operations. It is anticipated that the majority of construction-phase C&D debris would likely be diverted, while lower diversion rates are expected during operation of new developments. Existing programs, policies, and practices in place throughout the region would continue to reduce the rate of solid waste generation (amount per person or per employee) and divert a percentage of solid waste from landfills to recycling facilities. However, all of the currently permitted landfills would be closed before 2050, and the County and cities would have to expand the permitted landfill capacities within their jurisdictions to demonstrate they have more than 15 years of permitted landfill capacity, as required by the State's Integrated Waste Management Act (CalRecycle 2024a). Because there may not be sufficient landfill capacity in the region to accommodate forecasted regional growth through 2050, forecasted regional growth would generate solid waste at a level that would exceed the capacity of permitted solid waste disposal facilities in the region, even with waste reduction measures in place. Regional growth and land use change would have a significant impact.

Transportation Network Improvements and Programs

Major transportation network improvements by 2050 include new Managed Lanes and Managed Lane Connectors on SR 52, SR 56, SR 75, SR 94, SR 125, SR 163, I-15, and I-805, several of which will be a continuation of improvements from 2035. In addition, the proposed Plan includes increased roadway and transit connections to the United States–Mexico border, as well as expansion of and improvements to existing port of entry facilities, which will continue during this period. Upgrades at certain locations on the LOSSAN Rail Corridor would continue during this period. Grade separations on the SPRINTER, Blue Line, Green Line, and Orange Line, as well as double-tracking on the SPRINTER would also continue during this period. See Tables 2-7 through 2-10 for a full list of proposed projects by subregion.

Construction of transportation network improvements that would be implemented by the year 2050 would primarily generate C&D debris and a minimal amount of municipal solid waste (i.e., associated with construction workforce and transit station operations) While much of the C&D debris materials would be processed and diverted from landfills in accordance with recycling programs and policies, small quantities of municipal solid waste that would be produced from these construction projects would end up in landfills. The need to dispose of waste as part of the transportation network improvements would contribute to reduced capacity of landfills in the region, which may be insufficient to accommodate the region's waste disposal needs by 2050. Therefore, transportation network improvements would generate solid waste at a level that would exceed the capacity of permitted solid waste disposal facilities in the region and would require new or expanded solid waste disposal

facilities. Transportation network improvements and programs would have a significant impact on the solid waste disposal system in 2050.

2050 Conclusion

Implementation of regional growth and land use change and transportation network improvements and programs in the proposed Plan by 2050 would generate solid waste and C&D debris that may not be accommodated by the regional landfills. Although the forecasted growth and network improvements would comply with programs, policies, and practices to reduce the rate of solid waste generation, this impact (U-2) in the year 2050 would be significant.

MITIGATION MEASURES

U-2 GENERATE SOLID WASTE IN EXCESS OF STATE OR LOCAL STANDARDS OR IN EXCESS OF THE CAPACITY OF LOCAL INFRASTRUCTURE; IMPAIR THE ATTAINMENT OF SOLID WASTE REDUCTION GOALS; OR FAIL TO COMPLY WITH FEDERAL, STATE, AND LOCAL MANAGEMENT AND REDUCTION STATUTES AND REGULATIONS RELATED TO SOLID WASTE.

2035, 2050

U-2a Implement Mitigation Measures for New/Expanded Solid Waste Facilities.

During planning, design, and project-level CEQA review of solid waste facility projects, the County of San Diego, cities, and other solid waste management agencies can and should apply necessary mitigation measures to avoid or reduce significant environmental impacts associated with the construction or expansion of new or expanded solid waste facilities. Significant environmental impacts requiring mitigation may be identified in the following resource areas: air quality; biological resources; cultural resources; energy; greenhouse gas emissions; hydrology and water quality; noise and vibration; geology, soils, and paleontological resources; transportation; tribal cultural resources; and water supply. Mitigation measures may be similar to those described in this EIR for construction of development projects.

U-2b Reduce Construction Waste.

During planning, design, and project-level CEQA review and prior to the construction or demolition of transportation network improvement projects and development projects, SANDAG shall, and other transportation project sponsors, the County of San Diego, cities, and other local jurisdictions can and should, implement measures to reduce construction waste to comply with waste reduction goals identified by the state and local agencies, consisting of, but not limited to, the following:

- Ensure that source reduction techniques and recycling measures are incorporated into project construction and demolition.
- Reuse or recycle construction and demolition waste.

This mitigation measure would extend the life of existing landfills and delay the need to construct new or expanded landfills.

U-2c Reduce Operational Waste.

During planning, design, project-level CEQA review and construction of development projects, the County of San Diego, cities, and other local jurisdictions can and should integrate green building waste management measures such as those identified in the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED), Energy Star Homes, Green Point Rated Homes, and the California Green Builder Program. These measures consist of, but are not limited to, the following:

- Prepare and apply a waste management plan that promotes solid waste diversion.

- Implement source reduction through (1) using materials that are more durable and easier to repair and maintain, (2) designing to generate less scrap material through dimensional planning, (3) increasing recycled content, (4) using reclaimed materials, and (5) using structural materials in a dual role as finish material (e.g., stained concrete flooring, unfinished ceilings, etc.).
- Reuse existing structures and shells in renovation projects.
- Design for flexibility through the use of moveable walls, raised floors, modular furniture, moveable task lighting, and other reusable building components.
- Develop an indoor recycling program and space.

These mitigation measures would extend the life of existing landfills and delay the need to construct new or expanded landfills.

SIGNIFICANCE AFTER MITIGATION

2035, 2050

Implementation of the proposed Plan would result in significant impacts related to the construction of new or expanded solid waste facilities in 2035 and 2050. Implementation of mitigation measure U-2a would reduce these impacts through project-level planning, design, and CEQA mitigation measures. Mitigation measures U-2b and U-2c would further reduce this impact by extending the life of existing landfills and delaying the need to construct new or expanded landfills or landfill capacity. However, it cannot be guaranteed that all future project-level impacts can be mitigated to a less-than-significant level. Therefore, this impact (U-2) would remain significant and unavoidable.

4.15.5 Cumulative Impacts Analysis

C-PS-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS RELATED TO PUBLIC SERVICES

C-U-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS RELATED TO UTILITIES

C-REC-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS RELATED TO RECREATIONAL RESOURCES

The area of geographic consideration for cumulative impacts on public services and utilities is Southern California. Public services and utilities are common infrastructure throughout the region, and land use change and the transportation system would influence the location and demand for future development of new or additional services and utilities across the region. The provision of public services and utilities can be linked to jurisdictions, but often service providers cover large areas spanning multiple jurisdictional boundaries. Also, while some recreational facilities are local and serve only a small neighborhood, other recreational facilities provide opportunities for the population throughout the region. Thus, it is necessary to consider the region as a whole and the overall amount of development that would generate additional pressure and demand on services, utilities, and recreation facilities.

A hybrid approach for the analysis of cumulative public services and utility impacts allows for an overarching discussion of regional impacts associated with general patterns of regional urbanization, growth, and land use change that would create new or additional demand for services, utilities, and recreation facility use, or dictate where new or expanded infrastructure is located, while also allowing for specific consideration of any projects with known impacts to public services and utilities.

Growth, land use change, and transportation system improvements occurring throughout the Southern California region would impact public services and utilities. Significant cumulative impacts related to public services and

utilities would occur if the combination of impacts from the proposed Plan and impact projections in adopted plans would cause a substantial physical deterioration of public facilities or cause substantial adverse physical impacts associated with the provision of, or need for, new or physically altered public facilities to maintain adequate fire and police protection, schools, libraries, and recreation facilities; or result in the expansion or construction of wastewater treatment, storm water drainage, electricity/natural gas, or solid waste disposal facilities to adequately meet projected capacity needs or comply with regulations, the construction of which would cause significant environmental impacts.

The plans considered and relied on for this cumulative analysis include the SCAG 2024–2050 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and its EIR (SCAG 2024a, 2024b). Additionally, public service or utility providers, including cities, counties, special districts, school districts, and utilities that operate in Southern California, have adopted long-term plans that forecast the demand for services and identify specific facilities projects required to meet projected demand and needs.

Impacts of the Proposed Plan

As discussed above, the regional growth associated with the proposed Plan would require or result in the construction of new public services facilities or expansion of existing facilities, due to the higher levels of public service demand. This would result in short-term construction-related impacts, as well as operational impacts, to resources such as air quality, noise, and traffic. These impacts are typically reduced through actions of the implementing agency, including adherence to existing regulations and BMPs, but are considered significant because impact mitigation to less-than-significant levels for all projects cannot be guaranteed. Therefore, as described in paragraphs above, public service and utilities impacts due to the regional growth and land use change in the proposed Plan are significant in 2035 and 2050 (Impacts PS-1, U-1, and U-2).

Implementation of transportation network improvements would require minor use of public services and utilities and would generally not cause the need for new or expanded facilities. However, transportation network improvements associated with the proposed Plan would contribute to substantial adverse physical impacts associated with the construction of new or expanded storm water facilities in 2035 and 2050 (Impact U-1) and also result in substantial adverse physical impacts associated with the construction of new or expanded solid waste facilities in 2035 and 2050 (Impact U-2).

Implementation of regional growth and land use changes, as well as transportation network improvements, would result in increased demand for recreation facilities leading to accelerated deterioration and contribute to the physical removal of open space park and recreation lands. The proposed Plan would result in the removal of 2,031 acres of open space park and recreation lands by 2035 and 518 acres by 2050. Collectively, these impacts (Impact REC-1) would result in the substantial physical deterioration of existing park and recreation facilities.

Impacts of Related Projects

Projects planned in the Southern California region, such as the Navy Old Town Campus (OTC) Revitalization Project, border/POE facility improvements, airport expansions in the San Diego region, or port/maritime improvements associated with the Port Master Plan Update, would result in impacts related to increased demand for governmental utilities, such as wastewater collection and treatment facilities, storm water drainage facilities, energy infrastructure and solid waste facilities (U.S. Department of the Navy 2021). This regional growth would require or result in the construction of new facilities or expansion of existing facilities, due to the higher levels of public service demand. For example, the environmental impact statement (EIS) for the Navy OTC Revitalization Project determined that the project would result in increased density under several alternative options that would contribute to significant additional proposed growth in dwelling units, population, jobs, and nonresidential uses over the targets contained in the applicable community plan. An additional 40.2 acres of parkland would be required to meet the City of San Diego population-based standard for parkland if the property were to transfer out of federal ownership. Other projects, such as Mt. Etna Drive Developments, would similarly contribute to increased population growth and therefore result in additional demand on public services, recreational facilities, and utilities throughout the region.

Impact Projections in Adopted Plans

The County of San Diego General Plan EIR identified significant impacts on public services and utilities associated with the construction or expansion of police protection facilities, expansion of school facilities, and library facilities. Regionally, cumulatively considerable impacts on public services and utilities would result from implementation of the County of San Diego General Plan Update (County of San Diego 2011). The SCAG 2024–2050 RTP/SCS analyzes impacts on the SCAG region up to 2050 and found that even with implementation of identified mitigation measures, significant impacts on public services would result due to the considerable effects to the cumulative response times of police, fire, and emergency services in Southern California; direct and cumulative demand for school facilities; loss of open space and recreational lands; demand on existing recreational facilities; and direct and cumulative demand for solid waste services in the SCAG region (SCAG 2024a). Thus, regionally cumulatively considerable impacts on public services and utilities would result from implementation of the SCAG 2024–2050 RTP/SCS.

Throughout Southern California, individual cities and counties have also adopted general plans that guide growth and land use changes within their jurisdictions. Moreover, individual service providers, including cities, counties, special districts, school districts, and utilities, that operate in the Southern California region have adopted long-term plans that forecast the demand for services and identify specific facilities projects that will be required to meet projected needs. Each individual service provider, including cities, counties, special districts, school districts, and utilities, that has an adopted general plan or other long-term plan that forecasts the demand for services and identifies projects that will be required to meet projected needs, is responsible for conducting the appropriate environmental assessment, identifying impacts, and implementing mitigation measures to reduce impacts when possible. Construction-related and operational impacts are typically reduced through actions of the implementing agency, including adherence to existing regulations and BMPs, but are considered significant because impact mitigation to less-than-significant levels for all projects cannot be guaranteed.

Cumulative Impacts and Impact Conclusions

2035

As described above, impacts from construction of expanded or new facilities for public services and utilities from the proposed Plan and adopted plans in the Southern California region would be cumulatively significant in 2035 due to the compounding strain on public services, utilities, and recreational resources from regional growth. Because cumulative public services and utilities impacts, including solid waste and recreational resources impacts, throughout the Southern California region by 2035 would be significant, and because the proposed Plan's incremental impacts are significant, the proposed Plan's incremental public services and utilities impacts are also cumulatively considerable and thus significant (Impact C-PS-1, Impact C-U-1, and Impact C-REC-1).

2050

While many regional plans or projection impacts do not extend until the year 2050, public service and utility impacts, similar in nature to those identified for earlier years, would likely persist and also occur in 2050. As described above, impacts from construction and of expanded or new facilities for public services, utilities, and recreational resources from the proposed Plan and adopted plans in the Southern California, including solid waste, would be cumulatively significant in 2050 due to the compounding strain on public services, utilities, and recreational resources from regional growth. Because cumulative public services and utilities impacts, including solid waste and recreational resources impacts, throughout the Southern California region by 2050 would be significant, and because the proposed Plan's incremental impacts are significant, the proposed Plan's incremental public services and utilities impacts are also cumulatively considerable and thus significant (Impact C-PS-1, Impact C-U-1, and Impact C-REC-1).

MITIGATION MEASURES

C-PS-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS RELATED TO PUBLIC SERVICES

C-U-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS RELATED TO UTILITIES

C-REC-1 MAKE A CUMULATIVELY CONSIDERABLE CONTRIBUTION TO ADVERSE EFFECTS RELATED TO RECREATIONAL RESOURCES

Mitigation measures to reduce impacts associated with public services and utilities as identified in previous paragraphs in this section would be applicable to cumulative impacts as well.

The previous paragraphs in this section include mitigation measures PS-1, REC-1, U-1a, and U-1b, which call for jurisdictions with responsibility for construction of public facilities, recreation facilities, wastewater treatment facilities, or storm water facilities to apply mitigation measures to avoid or reduce significant environmental impacts associated with the construction or expansion of such facilities. This section also references mitigation measure WS-1a from Section 4.18, "Water Supply," regarding the reduction of water use for construction and operation of projects to conserve water. However, it cannot be guaranteed that all future project-level impacts can be mitigated to a less-than-significant level.

Mitigation measure U-2a calls for the reduction of impacts from construction or expansion of solid waste facilities, and mitigation measures U-2b and U-2c would reduce solid waste volumes that would require accommodation in regional landfills through the diversion of construction waste from transportation network improvement projects or other development projects and the implementation of green building waste management measures. However, it cannot be guaranteed that all future project-level impacts can be mitigated to a less-than-significant level.

Similarly, the SCAG 2024–2050 RTP/SCS EIR included mitigation measures to reduce impacts on public services, such as coordination with emergency service providers, avoidance and conservation of recreation and open space areas, patterns of urban development and land use that reduce costs on infrastructure and make better use of existing facilities green building measures, source reduction and recycling for construction projects, and waste management strategies. However, even with the implementation of mitigation measures, the EIR concluded that significant and unavoidable public service impacts would result.

Consistent with the above analysis, the proposed Plan's incremental contributions to cumulative public services and utilities impacts in years 2035 and 2050 would remain significant and cumulatively considerable post mitigation due to the compounding strain on public services, utilities, and recreational resources from regional growth.

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