

3.14 PUBLIC UTILITIES

3.14.1 Existing Conditions

Regional Water Supply

The climate in the San Diego region is a semiarid coastal desert with little rainfall (averaging ten inches annually). The San Diego region relies mostly upon imported water from Northern California and the Colorado River to meet its demands. Water is purchased from the San Diego County Water Authority (Water Authority or SDCWA), which is a wholesale water agency that providing imported water to its 24 member agencies. The SDCWA, in turn, purchases water from the Metropolitan Water District of Southern California (MWD), which is a cooperative of 26 cities and water agencies serving 18 million people in six counties. The MWD imports water from two primary sources: Northern California via the State Water Project (SWP) and the Colorado River vial MWD's Colorado Aqueduct. MWD has stated that it is "prepared to provide the Water Authority's service area with adequate supplies of water to meet expanding and increasing needs in the years ahead. (SDCWA, 2005, see page 6-2)."

MWD's 242 mile-long aqueduct brings Colorado River water from Lake Havasu to Southern California. The region also receives water originating in Northern California via the State Water Project (SWP). This water is captured in reservoirs north of Sacramento and released through natural rivers and streams into the Sacramento-San Joaquin Delta. The water is delivered to southern California through a 444 mile-long aqueduct. The MWD blends Colorado River and the SWP water at a facility in Riverside County, and then transfers the untreated water to the local water treatment plants, such as the City's three treatment facilities.

The San Diego County Water Authority and the City of San Diego, along with other urban water suppliers, are required by the state to prepare urban water management plans and update them every five years. The Water Authority's 2005 Urban Water Management Plan (2005 Water Plan) identifies a diverse mix of water resources as goals to be developed through 2030 to ensure long-term water supply reliability for the region. Key diversification strategies include: conservation within the region, conserved agricultural water (from lining the All-American and Coachella Canals), and most notably, a water transfer of up to 200,000 AFY of water from the Imperial Irrigation District (IID) for a term of at least 75 years. In April 2007, The SDCWA released an updated draft to the 2005 Water Management Plan. The draft reflects actions taken by the SDCWA Board of Directors to change seawater desalination from a regional water supply project to a local water supply project, and to adopt the Water Authority's Drought Management Plan. Seawater desalination remains a key component of the Water Authority's diversification strategy, according to the draft plan (SDCWA, 2007, p. 4-7).

City of San Diego Water Supply

The City's 2005 Urban Water Management Plan describes historic and projected water supply and demand scenarios, water supply reliability, water usage trends, current and planned facilities to support demand, current and planned demand management programs, water shortage contingency plans, water recycling efforts, groundwater use, and alternative sources of water

(desalting, water transfers, groundwater storage) that the City is considering. The City's water conservation efforts, discussed below, are an important component of the City's overall water supply strategy (City of San Diego, 2005).

The City of San Diego currently imports up to 90 percent of its water from outside of the San Diego region. The remaining ten percent of San Diego's water is of local origin, collected as runoff in the City's reservoirs. The City is, therefore, heavily dependent upon imported water. The City has elected to purchase a small portion of its imported water supplies from the County Water Authority already treated by MWD at the Lake Skinner Treatment Plant in Riverside County. The City only purchases this imported treated water for its most northern service territory because it is economically more advantageous to do so rather than pump the treated water supplies from the City's northernmost treatment facility at Miramar.

The City actively helped to form the Water Authority in 1947 to accommodate quickly growing water demands during war time. During the last 20 years the City has purchased between 100,000 and 228,000 Acre-Feet (AF) of water per year. For Fiscal Year 2005, water purchases totaled approximately 211,000 AF, representing 87 percent of the City's total water needs. In 2006, the City Water Department delivered 236,756 (AF) of treated water to its residents. Its service area is generally located within the south central portion of San Diego County and is approximately 330 square miles.

The Water Department also maintains and operates three water treatment plants with a combined total treated capacity of 294 MGD. The department maintains and operates 32 treated water storage facilities, and a series of distribution lines to serve San Diego residents. Along with the potable water supply, the City has two water reclamation plants to treat wastewater to a level that is approved for irrigation, manufacturing and other non-drinking, or non-potable purposes. The Water Department maintains and operates the recycled water distribution system.

Surface/Receiving Waters

The major receiving waters within the City include the Pacific Ocean, San Diego Bay, Mission Bay, the San Dieguito River, Los Peñasquitos Creek, the San Diego River, the Otay River and the Tijuana River (**Figure 3.7-2**, see Hydrology Section). Additionally there are minor receiving waters made up of creeks, channels, streams and lagoons. None of these receiving waters are used directly for potable water supplies. Major reservoirs of potable water within or managed by the City include Barrett, El Capitan, San Vicente, Hodges, Miramar, Murray, Lower Otay, Upper Otay, and Sutherland.

The City's water system consists of nine local surface water reservoirs with more than 410,000 AF of capacity, eight of which are connected directly or indirectly to water treatment plants. Use of local water by the City to meet water demand is affected by availability (rainfall), and water resource management policies. The City operates its reservoir system to maximize use of local water in conjunction with imported water programs. The total watershed area draining to the City's reservoirs is 946 square miles. Only 10 percent of this land is within the City. Therefore, protection of water quality in the reservoirs largely falls to other land use jurisdictions; notably, the County of San Diego.

While the City reservoirs capture local runoff, they also provide for emergency water storage. The purpose of emergency storage is to increase water supply reliability during an interruption of supply from the imported water aqueduct system. This is accomplished by maintaining a sufficient amount of water in accessible storage to ensure a supply of water to water treatment plants and customers should earthquakes or other events interrupt the supply of imported water.

Groundwater

The geography of San Diego provides limited natural local supplies in the form of groundwater, and it is not considered part of the existing supply. In order to be usable, much of the available groundwater must undergo desalination to be potable. In order to meet future water needs, the Water Department has potential groundwater supply options and has a demonstration groundwater desalination CIP project, but there is not any active use of potable groundwater at this time. Potential groundwater supplies are estimated at 6,000 – 20,000 AFY, but the current cost of utilizing the supply under current technology is infeasible. The San Pasqual/Lake Hodges groundwater basin is currently used for irrigation by some of the leaseholds.

Water Conservation

The City's Water Conservation Program was adopted by the City Council in 1985 to reduce San Diego's dependency upon imported water. The program now accounts for over 30,000 AF of potable water savings each year (San Diego, 2006H). (One AF of water equals 325,851 gallons or enough water to cover an area of land about the size of a football field one foot deep.) The Water Conservation Program includes such initiatives as the Commercial Landscape Survey Program, the Residential Interior/Exterior Survey Program, the Ultra Low-Flow Toilet and High-Efficiency Clothes Washer incentive programs, a web-based Landscape Watering Calculator, and a variety of public outreach and education efforts.

Recent legislation (Assembly Bills 2717 and 1881) identifies landscape irrigation as the single largest use of water in California's urban areas, and requires local jurisdictions to implement landscape water conservation recommendations that have been customized to respond to local climate, demographic, and economic factors. The City is participating in a regional effort to develop a customized strategic plan for landscape water conservation in San Diego County (San Diego, 2006K).

The City's 2005 Urban Water Management Plan sets long-range water saving goals of 32,000 AF per year by 2010; 36,000 AF by 2020 and 46,000 AF by 2030 (San Diego, 2006K). Conservation is expected to represent ten percent of San Diego's annual water demands in 2020 (San Diego, 2006F).

Wastewater Management

The City's Metropolitan Wastewater System treats the wastewater from the City and 15 other cities and districts (called Participating Agencies) from a 450-square-mile area with a population of over 2.2 million. An average of 180 million gallons of wastewater is treated daily. The Participating Agencies are the cities of Chula Vista, Coronado, Del Mar, El Cajon, Imperial Beach, La Mesa, National City, Poway, the Lemon Grove Sanitation District, the Otay Water

District, the Padre Dam Municipal Water District, the county of San Diego (including Lakeside/Alpine, Spring Valley, Wintergardens, and East Otay Mesa).

Wastewater from this service area of over 450 square miles is conveyed through 2,897 miles of collection pipeline, 83 pump stations, to the North City Water Reclamation Plant, the Point Loma Wastewater Treatment Plant (PLWTP or Point Loma Plant), and the South Bay Water Reclamation Plant (SBWRP). Treated effluent is discharged to the Pacific Ocean through two ocean outfalls. Solids from the wastewater treatment plants are processed at the Metro Biosolids Center located at the Marine Corps Air Station, Miramar (San Diego, 2003, and MWWD presentation of 1/19/07).

In the 1990s, the City constructed the two water reclamation plants, the biosolids treatment facility, and several pump stations, and made major upgrades to the Point Loma Plant. The treatment plant and two reclamation plants provide a functional treatment system capacity of 285 MGD, sufficient to meet the projected needs of the 450-square-mile service area through at least 2020. The two water reclamation plants produce reclaimed water for appropriate uses (including plant operation and irrigation) and support the City's water service strategy of diversifying water supply sources to reduce future reliance on imported water. Reclaimed water is sold and distributed by the City. **Figure 3.14-1**, Wastewater Facilities, identifies the location of these facilities.

The City is currently operating under a Partial Consent Decree in response to litigation over past sewer spills. There continues to be a need to rehabilitate or replace many pipelines, trunk sewers and pump stations to meet the City's wastewater management needs in accordance with state and federal requirements.

Storm Water Management

The City's storm water pollution prevention efforts and conveyance system is designed to protect the quality of recreational waters and potable water resources as mandated by the Federal Clean Water Act of 1972, and the San Diego Regional Water Quality Control Board. The City also maintains compliance with the Water Quality Control Plan for the San Diego Region, also referred to as the Basin Plan, and with storm water permits. These functions require a multi-faceted approach that couples 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. The City's storm water infrastructure includes more than 39,000 storm drain structures and over 900 miles of storm drain pipes and channels serving approximately 237 square miles of urbanized development.

Solid Waste Management

The City implements integrated solid waste management strategies that emphasize waste reduction and recycling, composting, and environmentally-sound landfill management to meet the City's long-term disposal needs. The primary focus of the City's solid waste management planning is preventing materials from entering the waste stream through citywide source reduction, recycling and composting programs. This emphasis is consistent with federal law under the Resource Conservation and Recovery Act, subtitle D, and the California's Integrated Waste Management

Act. These waste reduction programs are detailed in the City's *Source Reduction and Recycling Element* planning document, which is updated annually.

Non-recyclable solid waste is disposed of at the Miramar Landfill, which is a City-operated landfill. More than 1.4 million tons of waste is disposed at the Miramar Landfill every year. Operation of the facility requires a Solid Waste Facility Permit, issued by the City's Local Enforcement Agency, which reports to the California Integrated Waste Management Board. The facility must also comply with all applicable state environmental regulations. At that current rate, Miramar is expected to close by 2012. However, the Environmental Services Department has initiated a project that would allow up to a 20-foot height increase, allowing the landfill to operate until approximately 2016. Currently, only two other landfills provide disposal capacity within the urbanized region: Allied Waste's Sycamore and Otay landfills. The Sycamore Landfill is located to the east of Miramar, within the City's boundaries. A proposed expansion of Sycamore Landfill is currently under review by the City. The Otay Landfill is located within an unincorporated island within the City of Chula Vista. Solid Waste Facilities are identified on **Figure 3.14-2**.

State of California regulations for solid waste (California PRC § 41700 - 41721.5) require that each region have a plan with adequate capacity to manage or dispose of solid waste for at least fifteen years into the future. The solid waste plan for the San Diego County region is contained in the *Integrated Waste Management Plan, Countywide Siting Element*, January 2005. The plan shows that unless a new landfill is opened and/or existing landfills are expanded, the region has insufficient disposal capacity. It is the goal of the San Diego Association of Governments' (SANDAG) *Comprehensive Resource Management Plan*, the *Countywide Siting Element*, and the Draft General Plan to make every effort to extend the life of existing disposal facilities. SANDAG's *Regional Comprehensive Plan (RCP)* Chapter 4F provides similar language regarding "maximizing existing disposal capacity."

State Assembly Bill 939 sets forth a target for solid waste diversion. It mandates that 50 percent of the solid waste must be diverted from landfills by 2005. The City has achieved a 52 percent diversion rate (San Diego, 2006C). However, as of 2002 (per the *Countywide Siting Element*), the San Diego Region had not yet met this target (SANDAG, 2006). The RCP aims to work toward a 75 percent diversion rate.

Energy (Electrical Power and Natural Gas)

The City participates in regional energy planning efforts, and is actively working to achieve the City's long-term goal to pursue energy independence.

Electricity is produced at power plants and transmitted over power lines to users. Some electricity is produced within the San Diego region at the Cabrillo (Encina) and South Bay Power Plants, as well other smaller power plants. San Diego Gas & Electric Company (SDG&E) provides energy service to 3.3 million consumers through 1.3 million electric meters and more than 800,000 natural gas meters in San Diego and southern Orange counties. The utility's area spans 4,100 square miles. **Figure 3.14-3**, Gas and Electric Substations and Transmission Lines, identifies some of SDG&E's facilities within the City.

Natural gas is imported into the City from sources outside of the region through pipelines to users. There are no storage facilities for natural gas in the region. Gas is used primarily for generating electricity and for heating homes and businesses. There is a growing demand for gas in the region (SANDAG, 2004B).

The Regional Energy Strategy (RES) 2030 was produced to develop a vision for how energy will be produced and consumed in the region (SANDAG, 2003). This strategy developed policies and provided measurable targets to achieve the region's sustainable energy vision. At a regional level, the current status toward meeting these targets is reported in the RCP Performance Monitoring Report (SANDAG, 2006). Specific RES targets and progress in meeting them include:

Target: Achieve a reduction in both per capita electricity peak demand and overall per capita electricity consumption back to 1990 levels (5,151 kWh per capita) by 2010.

Progress: Since RES adoption in 2003, per capita electricity consumption has increased an average of two percent per year, and it is approximately 16 percent higher than 1990 levels. However, California has the lowest per capita electricity consumption of any state and consumes almost 50 percent less electricity per capita than the national average, and San Diego's per capita consumption was 23 percent lower than the state level in 2000 and 15 percent lower in 2003.

Target: Achieve and maintain the capacity to generate 65 percent of summer peak demand with in-county generation by 2010, and 75 percent by 2020.

Progress: In-region assets currently provide approximately 60 percent of total capacity needs, though their operation is at less than capacity due to the potential environmental impacts and other factors.

The share of energy produced within the region has decreased to roughly 25 percent in 2005. In 1990 and 1995, energy produced in the region remained steady at roughly 34 percent.

Target: The development of renewable energy resources such as wind, solar, and geothermal is specifically encouraged in the RCP, and the Draft General Plan, and targets have been established in the RES and by state law.

Progress: By 2005, the share of energy produced from renewable resources reached 5.3 percent. This was a large improvement over the previous ten years when only one percent or less of energy produced was from renewable resources.

SDG&E has stated that it will reach the state-required 20 percent Renewable Portfolio Standard (requires sellers of electricity to have renewable power in their mix) in 2010, a target which is five percent higher than the original RES target for that year. The City implements measures to

reduce the energy used in City buildings and operations, to generate energy from renewable sources, and to encourage communitywide energy conservation efforts. Through its energy generation efforts, the City produces a maximum of 153,300 megawatt hours annually of electricity, equivalent to powering 14,194 homes. The electricity is produced from renewable sources such as methane gas harvested from the City's Miramar Landfill, from treated wastewater that drives a hydro generator, and from photovoltaics placed on City buildings. In addition, the City has signed on to the U.S. Mayors Climate Protection Agreement, which includes taking actions to conserve energy and water conservation, and to promote the use of renewable energy resources (see PEIR Section 5.0 which addresses climate change).

Communications

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

The primary public utility in the region is SDG&E. In addition to the major energy utility, there are other prominent utilities serving the City and region. AT&T is the nation's largest telecommunications company providing local residents with integrated communications and entertainment services including Internet Protocol (IP)-based IP network capabilities which integrate voice, data and video. The dominant providers of communications networks and cable television programs are Cox Communications and Time Warner Cable, providing cable, high-speed internet, and digital telephone services.

Utilities Undergrounding

The City of San Diego has been undergrounding lines since 1970 and the program is currently relocating approximately 30-35 miles of overhead utility lines underground throughout the City each year. It is estimated that nearly all residential areas will be completed within the next 50 years.

The Utilities Undergrounding Program consists of two types of projects: one involves SDG&E Rule 20 (or SBC tariff 32) projects that must meet certain public benefit criteria consistent with the California Public Utility Commission's statewide program. This program relates primarily to overhead lines along major city streets. The second type is known as a Surcharge project which is where the project is funded by the increased franchise fee authorized by the CPUC in Resolution E-3788. Projects that fall into the surcharge category are typically found in residential areas that do not meet Rule 20 criteria.

3.14.2 Thresholds of Significance

A significant impact could occur if implementation of the General Plan:

- Results in the use of excessive amounts of water beyond projected available supplies;
- Promotes growth patterns resulting in the need for and/or provision of new or physically altered utilities, the construction of which could cause significant environmental impacts in order to maintain service ratios, or other performance objectives; or
- Results in the use of excessive amounts of electrical power, fuel or other forms of energy.

3.14.3 Impact Analysis

Could implementation of the Draft General Plan result in the use of excessive amounts of water beyond projected available supplies?

Implementation of the Draft General Plan anticipates that population growth will occur, and with population growth there will be an increase in water demand. SANDAG's latest projection, the *2030 Regional Growth Forecast* (SANDAG, 2004C) was used in the water demand projections in the Urban Water Management Plan, 2005. The data indicates that the City of San Diego's population is expected to increase from about 1.3 million to almost 1.7 million in 2030. The growth rate for the incremental years is predicted to be 28 percent. In 2006, 236,756 AFY of treated water was delivered by the City Water Department. By 2030, the City's water demands are projected to increase to a total demand of 275,925 AFY.

The Water Authority's 2005 Water Plan projects reliability of its water supply through 2030 to correspond with the SANDAG growth forecast and the City's projected demand of 275,925 AFY. Major sources of water identified in the Water Authority and City 2005 Water Plans are discussed above (see **Section 3.14.1**). To alleviate the risk of unforeseen shortages, the Water Authority would pursue other strategies to increase water supply involving the use of recycled water, ground water, conservation, canal lining, and surface storage to meet service area needs. As a member agency, the City of San Diego participates in implementing the Water Authority's strategies. Additionally, the City has also identified its efforts to conserve water, increase use of recycled water, and consider new alternative sources of water as important programs to help meet San Diego's future water demand.

Water supply projects pursued by the Metropolitan Water District, the San Diego County Water Authority, and the City of San Diego are subject to environmental regulatory constraints and each project must satisfy the requirements of CEQA.

A discussion of specific future impacts and associated mitigation measures for each water supply project is beyond the scope of this EIR; however, future water supply projects can be expected to include both construction-related and operation-related impacts. Construction would include physical alteration of land and the building of structures to develop storage facilities or

desalination plants, and may involve direct and indirect, short- and long-term impacts related to environmental topics, such as air quality; noise; traffic; biological resources; cultural resources; agricultural resources; aesthetics; geology/soils; and hydrology/water quality. Operation of storage facilities and desalination plants may also create direct and indirect, short- and long-term impacts related to these same environmental topics as water is stored, transferred, distributed and/or treated, and the human activity required to conduct these operations takes place.

Construction-related and operation-related environmental impacts for future water supply projects may create significant impacts in the environmental areas mentioned above. Such significant impacts require the application of feasible mitigation measures to avoid or reduce them under CEQA. Many significant environmental impacts associated with similar projects constructed and operated throughout California (such as, water storage facilities, water treatment plants, wastewater treatment plants, and water distribution systems) have been successfully mitigated (reduced to less than significant levels) or avoided through environmentally sensitive approaches to project design or adherence to existing regulatory standards. The same types of mitigation measures, design approaches and regulatory standards would be applied to future water supply projects identified as options to reduce the risk of unforeseen water shortages in the San Diego area.

Additional information on the types of permits and regulatory actions associated with major water supply projects can be found as follows:

- State Water Project – SDCWA, 2005, pp. 6-7 -6-10
- Water Transfer Agreement (canal lining) – SDCWA, 2005, p 4-2
- Groundwater and Recycling – SDCWA, pp 5-5 -5-20
- Water Quality Issues – SDCWA, pp. 7.1-7.8

Urban development that may occur under the Draft General Plan is not expected to exceed the projections made by SANDAG and used in the 2005 Water Plans. However, if unforeseen shortages occur and alternative water sources are not available, the City may limit or condition the approval of development that could significantly impact water supply either individually or cumulatively. Conditions could include all reasonable mitigation to avoid, minimize, or offset the impact.

Contingency plans also exist for addressing the uncertainties of ensuring water supply in the case where a catastrophic water shortage occurs during a disaster. In addition to an Emergency Response Plan, which includes policies and emergency procedures that would address such an incident, the Water Authority is implementing its Emergency Storage Project which has been designed to reduce the risk of potential catastrophic damage that could result from prolonged interruption of imported water due to earthquake, drought or other disaster. The Emergency Storage Project consists of a system of reservoirs, pipelines and other facilities that will work together to store and move water around the county in the event of a natural disaster and is scheduled for completion in 2012. Further, in order to address uncertainties associated with maintaining and developing local and imported water supplies, the Metropolitan Water District of Southern California (MWD) is developing a comprehensive Drought Management Plan that would be coordinated throughout the San Diego Region. The Drought Management Plan will

provide the Water Authority and its member agencies with a series of actions to take when faced with a shortage of imported water supplies from MWD due to drought conditions. This plan will include all aspects of drought planning including steps to avoid rationing, drought response stages, allocation methodology, pricing, and communication strategy (SDCWA, 2005 see p.9-1 through 9-12).

Two recent court cases could have an effect on the analysis of water supply in this EIR. The first case impacts the provision of water resources to the City. The second case more clearly defines legal requirements for documenting the reliability of water supplies for large projects such as the Draft General Plan. In 2007, *Natural Resources Defense Council v. Kempthorne* (also known as the “Delta Smelt” case) required pumping reductions to protect the habitat of endangered species in the Sacramento Delta, particularly during dry and critically dry years. Because this is a source of water for the SDCWA, there could be a direct effect on the water supply to the City. The Department of Water Resource projects reductions in the range of 12-37% of normal volumes during winter and spring breeding months. Because of the added reliability SDCWA has with the Imperial Irrigation District water transfer, the effect on the City would be reduced from that 12-37%. To meet this challenge, contingency plans of the City of San Diego, San Diego County Water District and Metropolitan Water District, and in particular water conservation measures, and additional water transfers, could be activated to compensate for the reduction in supply during dry years.

Additional policies in the Draft General Plan will augment these contingency plans for the City. During the 1987-1992 drought, supplies to the SDCWA were reduced by as much as 31% , and contingency plans were developed and implemented to be able to meet the crucial demands for water supply to the region (SDCWA, 2005).

The 2005 Urban Water Management Plan covers contingency plans for dry years and related to delivery of water from the State Water Project. The Draft General Plan emphasizes the need to provide and maintain essential water supply infrastructure to serve existing and future development, to continue to participate in watershed planning efforts, and to coordinate land use planning and water infrastructure planning with local, state, and regional agencies.

Potential future impacts related to water supply can be reduced through Draft General Plan policies and ongoing City programs that direct the City to implement a balanced, water conservation strategy as an effective way to manage demand by: reducing dependence on imported water supplies; maximizing the efficiency of existing urban water and agricultural supplies through conservation measures/programs; and developing alternative, reliable sources to sustain present and future water needs. Policies and programs also call for an integrated approach to watershed planning, and water supply and land use studies to ensure that the City can provide adequate water supplies for present uses and accommodate future growth.

As required by the Urban Water Management Planning Act, the Development Services Department (DSD) ensures that major projects are sited and designed to minimize impacts to water resources. Pursuant to SB 610, prior to approval of any discretionary permit for a future project, DSD ensures that the water purveyor of a public water system prepare a water supply

assessment to be included in the environmental documentation of certain large proposed projects including:

- a. Residential developments of more than 500 units;
- b. Shopping centers or businesses employing more than 1,000 people or having more than 500,000 square feet of floor space;
- c. Commercial office buildings employing more than 1,000 people or having more than 250,000 square feet of floor space;
- d. Hotels or motels having more than 500 rooms;
- e. Industrial, manufacturing, or processing plants or industrial parks planned to house more than 1,000 people or having more than 650,000 square feet of floor space;
- f. Mixed-use projects that include one or more of the above types of projects;
- g. Projects that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

In addition, pursuant to SB 221, DSD also requires affirmative written verification from the water purveyor of a public water system that sufficient water supplies are available for certain large residential subdivisions of property prior to approval of a tentative map.

The projected water supply is anticipated to meet water demands for the Year 2030. Alternatives such as the development of additional storage, the use of recycled water, ground water, conservation, and canal lining have been identified by the Water Authority to alleviate the risk of potential water shortages. Additionally, water strategies have also been identified by the City such as water conservation efforts, increased use of recycled water, and new alternative sources of water (i.e. desalting, water transfers, groundwater storage, and repurifications) have been identified to help diversify the City's sources of water and consequently improve water supply reliability. To address catastrophic water shortages and drought management planning, the Water Authority and its member agencies, through emergency storage and response plans, are taking actions to prepare for and adequately handle a potential catastrophic interruption of water supply. Furthermore, the Drought Management Plan would identify actions to be taken by the Water Authority to minimize impacts resulting from a water shortage due to drought and include strategies to address water related emergencies. This management plan can also be applied to reductions in imported water supply related to protection of endangered species habitat. Additionally, the City has the ability to condition development with all reasonable mitigation to avoid, minimize, or offset the impact to the water supply should unforeseen water shortages occur and alternative water sources are not available. Therefore, no significant impact has been identified at this program level of analysis.

Could implementation of the proposed General Plan promote growth patterns resulting in the need for and/or provision of new or physically altered utilities, the construction of which could cause significant environmental impacts in order to maintain service ratios, or other performance objectives?

The Draft General Plan calls for future growth to be focused into mixed-use activity centers linked to the regional transit system. Implementation of the plan would result in infill and redevelopment occurring in selected built areas, which would be identified through the

community plan update/amendment process. The Draft General Plan would also guide the development of remaining developable vacant land. The City's existing built areas are currently served by water, solid waste, storm water infrastructure and public utilities infrastructure. However, some of the City's built areas have existing infrastructure deficiencies and would require capacity improvements to serve the additional population. Therefore, it is anticipated that new or improved public utilities infrastructure would be required to meet the needs of new growth occurring through infill/redevelopment as well as on remaining vacant, developable lands.

In order to ensure that the needed facilities will be built and provided, the Draft General Plan contains detailed policies on how to evaluate growth, determine facilities needs, and to require development to pay its fair share of costs. The Draft General Plan requires that the facility needs of new development be evaluated, and that any project-related facilities deficiencies be addressed to ensure that existing needs are not compounded. The Draft General Plan policies require development proposals to fully address effects on public facilities and services through the payment of development impact fees or facilities benefit assessments. In addition, projects that necessitate a community plan amendment due to increased densities will be required to provide or help fund physical improvements that benefit the affected community planning area. In addition, the Draft General Plan calls for the establishment of a centralized development monitoring system; and for the maintenance of up-to-date public facilities financing plans to guide the provision of public facilities. Overall, the Draft General Plan states that the City is committed to utilizing its police powers and legislative authority to ensure that public facilities and utilities are provided.

To minimize the need for new facilities and utilities, the Draft General Plan contains policies that call for cooperative planning and joint use with other agencies, resource conservation to reduce demand for water and energy, implementation of best management practices and public education efforts to reduce the need for storm water pollution and protect reservoirs, increased waste diversion, and coordinated planning with developers and utility providers. In addition, the Draft General Plan incorporates and further defines how to implement the City of Villages strategy, which was designed in part to create a development pattern that could be efficiently served by public facilities and utilities. The City of Villages strategy creates an efficient land use pattern by concentrating future growth into limited, targeted areas.

The Draft General Plan also includes policies that would reduce construction impacts by directing the City to minimize landform alternations and use sustainable building practices to help ensure that the actual construction and operations of public utilities infrastructure will be as environmentally sensitive as possible.

Future growth is anticipated by the Draft General Plan and expansion or construction of the following types of infrastructure/public utilities will be needed to serve that growth:

Water System

In response to state and federal mandates, the City is required to make improvements to its water treatment facilities, replace cast iron water mains, and implement a wide variety of improvements throughout the water system. The City has prepared a Capital Improvement Program (CIP) to

address these issues as well as to ensure sufficient capacity and water quality for the future. (San Diego, 2006J). On February 26, 2007, The City Council approved a water and sewer rate increase to pay for this infrastructure investment.

The Draft General Plan has policies that call for the City to maintain conveyance and treatment capacity, and to coordinate land use planning and water infrastructure planning to provide for future development and maintain adequate service levels.

Regional population growth projections, generally based on SANDAG 2030 forecasts, are used for facility planning purposes (San Diego, 2006I). Implementation of the General Plan is not anticipated to result in population increases that exceed SANDAG's forecast. However, the construction aspects of future water infrastructure projects are not currently known and it is infeasible at this Program EIR level to provide specific mitigation that would reduce impacts to a less than significant level. As such, there is a potential for significant unavoidable impacts due to the construction of future water infrastructure improvements. Future environmental analysis would be required for any such future project (i.e. a private development project or CIP project) and identification of project-specific mitigation measures would be determined at that time.

Wastewater Management

The City must make improvements to upgrade its wastewater facilities and meet state and federal mandates. On February 26, 2007, the City Council approved a water and sewer rate to pay for this infrastructure investment. The Draft General Plan has policies that call for the City to maintain conveyance and treatment capacity, and to coordinate land use planning and wastewater infrastructure planning to provide for future development and maintain adequate service levels.

Regional population growth projections, generally based on SANDAG 2030 forecasts, are used for facility planning purposes (San Diego, 2006I). Implementation of the General Plan is not anticipated to result in population increases that exceed SANDAG's Forecast. However, the construction aspects of future wastewater infrastructure projects are not currently known and it is infeasible at this PEIR level to provide specific mitigation that would reduce impacts to a less than significant level. As such, there is a potential for significant unavoidable impacts due to the construction of future wastewater infrastructure. Future environmental analysis would be required for any such future project (i.e. a private development project or CIP Project) and identification of project-specific mitigation measures would be determined at that time.

Storm Water Management

The City invests in storm water infrastructure (curbs, gutters, inlets, catch basins, pipes, and others) to help reduce pollutant loading to acceptable levels. The City's storm drain fee and other sources of funds are instrumental in ensuring compliance with legal mandates and maintaining storm water prevention and conveyance functions.

The Draft General Plan has policies to install infrastructure, where feasible, to capture, minimize, and prevent pollutants in urban runoff from reaching receiving waters and potable water supplies. However, the construction aspects of future storm water infrastructure projects are not currently known and it is infeasible at this PEIR level to provide specific mitigation that would reduce impacts to a less than significant level. As such, there is a potential for significant

unavoidable impacts due to the construction of future storm water infrastructure improvements. Future environmental analysis would be required for any such future project (i.e. a private development project or CIP project) and identification of project-specific mitigation measures would be determined at that time.

Solid Waste Management

Disposal needs in the San Diego area continue to grow as a result of population growth, and changes in the nature of the commercial, industrial, and residential sectors of the City. The City implements integrated solid waste management strategies that emphasize waste reduction and recycling, composting, and environmentally-sound landfill management to meet the City's long-term disposal needs. The primary focus of the City's solid waste management planning is preventing materials from entering the waste stream through citywide source reduction, recycling and composting programs.

The City has achieved a 52 percent diversion rate (San Diego, 2006C). However, even with continued increases to the City's diversion rate, additional landfill capacity is needed. Actions to increase landfill capacity include a City proposal to increase the elevation of the active portion of Miramar Landfill up to 20 feet, to add approximately four years of capacity to the landfill. An EIS/EIR for this proposal is currently being prepared (Lisa Wood, 1/07). Also, a proposal to expand the Sycamore Landfill is being processed by the City. Additional actions will be needed to increase landfill capacity; however, the construction aspects of future solid waste disposal projects are not currently known and it is infeasible at this PEIR level to provide specific mitigation that would reduce impacts to a less than significant level. As such, potential impacts due to the construction of future solid waste disposal improvements are considered significant and not yet mitigated. Future environmental analysis would be required for any such future project and identification of project-specific mitigation measures would be determined at that time.

Communications

Providing and planning for adequate public utilities and the means to transmit, convey, or provide the service is essential to ensuring that services and utilities keep pace with anticipated growth. The scarcity of suitable facility sites and the sensitivity of conserved resource areas, especially in urbanized areas where many facilities are located, make planning for sufficient public utilities challenging. The Draft General Plan has policies to provide, maintain, and operate public utilities in a manner that enhances the environment. Specific policies call for the City to integrate the design and siting of safe and efficient public utilities and associated facilities into the early stages of the long range planning and development process, and cooperatively plan for and design new or expanded public utilities and associated facilities (e.g., telecommunications infrastructure, planned energy generation facilities, gas compressor stations, gas transmission lines, electrical substations and other large scale gas and electrical facilities) to maximize environmental and community benefits.

The specific locations and design of future public utility and communications lines are unknown at this time. For the purposes of this impact analysis, it is assumed that impacts to public utilities may occur with future actions. However, the construction aspects of future communications projects are not currently known and, it is infeasible at this PEIR level to provide specific mitigation that would reduce impacts to a less than significant level. As such, there is a potential

for significant unavoidable impacts due to the construction of future communications improvements. Future environmental analysis would be required for any such future communications project and identification of project-specific mitigation measures would be determined at that time.

Could implementation of the proposed General Plan result in the use of excessive amounts of electrical power, fuel or other forms of energy?

Energy

The proposed action is the adoption of a Draft General Plan that does not specifically address any particular development project. However, implementation of the Plan has the potential to result in impacts to energy supply due to the development that is anticipated to occur in response to project population growth, and the potential for additional growth that could result from subsequent community plan updates.

The City is taking a leadership role in an effort to conserve energy and reduce Greenhouse Gas Emissions (GHG). In 2002, the San Diego City Council approved the San Diego Sustainable Community Program. The Program includes participation in the Cities for Climate Protection (CCP) program coordinated through the International Council of Local Environmental Initiatives (ICLEI); and establishment of a 15 percent GHG reduction goal set for 2010. In October 2006, the City continued its efforts to reduce GHG as the Mayor signed on to the U.S. Mayor's Climate Protection Agreement. Under the agreement, the City has committed to strive to meet or beat the Kyoto Protocol targets that include increasing energy efficiency and water conservation; reducing vehicle miles traveled; maintaining healthy urban forests; reducing sprawl; and promoting the use of clean, renewable energy resources. In addition a major focus of the Draft General Plan is to create compact, walkable communities that are connected to the region's transit system, while protecting important open spaces. The Draft General Plan includes comprehensive policy guidance calling for GHG emission reductions, increased use of clean, renewable energy, development of a multimodal transportation system, expansion of the urban forest, and a continued commitment to sustainable development.

Specific actions that City departments are taking to help meet Kyoto Protocol targets include the following:

1. City efforts to increase the average fuel efficiency of municipal fleet vehicles include the use of alternative fuels for the refuse collection fleet.
2. Trash collection routes were rerouted to reduce greenhouse-gas producing fuel emissions by reducing the miles traveled.
3. The City produces and uses methane-generated power from landfills and sewage treatment plants, and generates solar energy through panels on City buildings that produce almost 516,000 kilowatts hours of electricity annually (San Diego, 2006c).
4. Since its establishment in 2001, the City's energy program (applies to the City organization) saves 24 million kWh annually (San Diego, 2006C). New construction or

retrofits for the City that are 10,000 sq ft or more need to meet U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) silver standards. The LEED Rating System measures performance in: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality (USGBC).

5. City participation in the San Diego Regional Energy Partnership to reduce energy consumption and demand in Southern California (San Diego, 2006d) through a variety of programs including: incentives for residential retrofits, residential outreach/education, peer-to-peer education, and City energy efficiency retrofits.

General Plan policies and City programs would aid in reducing adverse energy impacts, but the projected population growth in the City would result in an increased demand for energy. Additional actions may be needed to increase energy supply; however, the construction aspects of future energy supply projects are not currently known and it is infeasible at this PEIR level of analysis to provide specific mitigation that would reduce energy demand to a less than significant level. As such, there is a potential for significant and unavoidable impacts due to excessive energy consumption and the construction of future energy supply improvements. Future environmental analysis would be required for any such future project and identification of project-specific mitigation measures would be determined at that time.

3.14.4 Mitigation Framework

Water Supply

No significant impact has been identified for this issue area.

Public Utilities Infrastructure (Water System, Wastewater Management, Storm Water Management, Solid Waste Management, Communications)

See **Section 3.13-3** for the mitigation framework pertaining to the construction of public utilities infrastructure.

Energy

Goals, policies, and recommendations enacted by the City combined with the federal, state and local regulations described above provide a framework for developing project level public utilities resource protection measures for future discretionary projects. The City's process for the evaluation of discretionary projects includes environmental review and documentation pursuant to CEQA as well as an analysis of those projects for consistency with the goals, policies and recommendations of the General Plan. In general, of the above policies and compliance with the federal, state, and local regulations would preclude or substantially reduce energy impacts.

Compliance with standards is required of all projects and is not considered to be mitigation. However, it is possible that for certain projects, adherence to regulations may not adequately avoid or reduce impacts, and such projects would require additional measures. For each future City project requiring mitigation (i.e., measures that go beyond what is required by existing regulations), site-specific measures will be identified that reduce significant project-level impacts

to less than significant, or the project level impact may remain significant and unavoidable where no feasible mitigation exists. Where mitigation is determined to be necessary and feasible, these measures will be included in a Mitigation Monitoring and Reporting Program (MMRP) for the project. The Mitigation Framework measures listed below summarize general measures that may be implemented to preclude impacts. These measures may be updated, expanded and refined when applied to specific future projects based on project-specific design and changes in existing conditions, and local, state and federal laws. Potential measures include:

- Innovative project design, construction and operations to reduce stormwater pollution, energy use, and waste generation. The City's Sustainable Building Policy (900-14) allows an expedited review time for the private sector proposing projects meeting specified criteria including the LEED Silver rating standard for energy efficient construction and design.
- Implementation of water and energy conservation measures beyond what is required by local, state, and federal regulations.
- Project siting, mix of land uses, and design that reduces the need to drive, thus reducing vehicle miles traveled compared to what would occur through conventional development.
- Strategic planting of trees in quantities and locations that maximizes environmental benefits such as shading.

3.14.5 Significance of Impact with Mitigation Framework

No specific projects or actions have been identified with the Draft General Plan that would result in any direct or indirect physical change in the environment. However, future growth is anticipated and the level of energy demand and the construction of future public utilities needed to support that growth may result in environmental impacts. Therefore, impacts associated with excessive energy demand and the construction of public utilities may occur and even though potential mitigation framework measures have been identified, those impacts remain significant and unavoidable.

Future environmental analysis would be required for specific public utilities projects necessary to implement the Draft General Plan to identify associated construction-related impacts and project-specific mitigation

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