4.12 PUBLIC UTILITIES

This section of the EIR evaluations potential impacts associated with public utilities resulting from implementation of the proposed project. The following discussion is based, in part, on the Preliminary Drainage Study and Floodplain Analysis (Fuscoe 2020a), Sewer Study (Fuscoe 2020b), and Water Supply Assessment (Fuscoe 2020c) prepared for the project, which are included as Appendices I, L, and M of this EIR, respectively.

4.12.1 Existing Conditions

4.12.1.1 Water Supply

Helix Water District

The Helix Water District (HWD) provides water services to 276,000 customers through a water system that serves over 50 square miles in the cities of La Mesa, Lemon Grove, and El Cajon; and the unincorporated communities of Spring Valley and Lakeside within the County of San Diego. HWD imports approximately 83 percent of its water from other areas such as northern California and the Colorado River (HWD 2016). To do this, HWD purchases imported water from the San Diego County Water Authority (Water Authority). The Water Authority was formed for the purpose of purchasing Colorado River water from The Metropolitan Water District of Southern California (MWD) for conveyance to San Diego County.

HWD's water system consists of a large network of infrastructure connecting residents and businesses to the water supply and includes 56,255 service meters, 735 miles of water transmission and distribution pipeline, 25 reservoir tanks, 25 water pump stations, and one water treatment plant, the R.M. Levy Water Treatment Plant with a total capacity of 106 million gallons per day (HWD 2020). HWD's primary water collection and storage facilities are at Lake Cuyamaca, Lake Jennings and El Capitan Reservoir. Grossmont Reservoir, located under Harry Griffin Park, has a storage capacity of 31.4 million gallons (MG). Twenty-two other aboveground storage tanks (ASTs) are located throughout the HWD service area with eleven of these located in La Mesa. The ASTs provide an additional 38.5 MG for a total storage capacity of approximately 70 MG of water (HWD 2015).

HWD's 2015 Urban Water Management Plan (UWMP) was developed to serve as the overarching water resources planning document to address HWD's water system, water demand, water supply resources, conservation efforts, and historic and projected water use. The 2015 UWMP was prepared in accordance with the Urban Water Management Planning Act, requiring urban water suppliers to adopt and submit a plan every five years to the California Department of Water Resources.

The Metropolitan Water District of Southern California

The MWD was formed in 1928 to develop, store, and distribute supplemental water in Southern California for domestic and municipal purposes. The MWD is a wholesale supplier of water to its member agencies, which includes the Water Authority. It obtains supplies from local sources as well as the Colorado River via the Colorado River Aqueducts, which it owns and operates. It also obtains water supplies via the Sacramento-San Joaquin Delta via the State Water Project. Planning documents such as the Regional Urban Water Management Plan (RUWMP) and Integrated Water Resources Plan (IWRP)

help to ensure the reliability of water supplies and the infrastructure necessary to provide water to Southern California.

MWD's IWRP was updated in 2015 to accommodate recent changes in retail demands, water use efficiency, and local and imported supplies, and to update resource targets. The IWRP sets reliability targets to identify developments in imported and local water supply and in water conservation to reduce water shortages and mandatory restrictions. These regional targets are set for conservation, local supplies, State Water Project supplies, Colorado River supplies, groundwater banking, and water transfers. MWD's 2015 RUWMP, adopted in June 2016, documents the availability of these existing supplies and additional supplies required to meet future demands. It includes the resource targets in the IWRP and contains an assessment of water supply reliability. The Long-Term Conservation Plan was implemented in July 2011 with the goal to achieve the conservation target in MWD's 2010 IWRP as well as to pursue water efficiency innovations and to transform the public's perception of the value of the regional water supply.

San Diego County Water Authority

The Water Authority is an independent public agency that serves as the County's regional water wholesaler. As a retail member agency of the Water Authority, HWD purchases water from the Water Authority for retail distribution within its service area.

The Water Authority's 2015 UWMP was adopted by the Water Authority Board in June 2016 in accordance with state law and the RUWMP. The 2015 Plan contains a water supply reliability assessment that identifies a diverse mix of imported and local supplies necessary to meet demands over the next 25 years in average, single-dry year, and multiple-dry year periods. The UWMP documents that although no shortages are anticipated during a normal year through 2040, shortages may occur during a single-dry year starting in 2035, and during a multiple-dry water year event starting in 2028. The Water Authority also prepares an annual water supply report providing updated documentation on existing and projected water supplies.

4.12.1.2 Water Distribution System

HWD provides water service to the project area via HWD's R.M. Levy Water Treatment Plant (WTP) and/or the Water Authority's Second Aqueduct Pipeline. Water is distributed from these facilities to the project area in a system of large water pipelines that connect to numerous distribution main lines within the City. An existing 10-inch-diameter water main is located within Alvarado Road that currently provides potable water service to the project site.

4.12.1.3 Wastewater Collection System

The City provides sanitary sewer service for all areas within the City limits and owns, operates, and maintains approximately 165 miles of sewer main and several interagency connection facilities located in the County of San Diego. The City's collection system is divided into four major sewer drainage basins, including the Alvarado, University, Spring Valley, and Lemon Grove Sewer Basins. The City is a member of the Metro Wastewater Joint Powers Authority, which is a coalition of agencies that utilize the Point Loma WTP operated by the City of San Diego. As such, the City's wastewater ultimately flows into the City of San Diego's Metropolitan Wastewater System for treatment and disposal (City 2019).

The project site is in the Alvarado Basin, located in the northwestern portion of the City, and wastewater from the project area flows to the Alvarado Trunk Sewer main pipeline The Alvarado Trunk sewer main extends within Alvarado Road and is composed of a 21-inch-diameter vitrified clay pipe (VCP). A 15-inch diameter sewer lateral extends southward from the sewer main in Alvarado Road in the eastern portion of the site and then turns to the west across the site where it connects to an eight-inch-diameter sewer pipe within Alvarado Creek. Another eight-inch-diameter sewer pipe extends southward from the on-site lateral and off the site beneath the MTS Green Line trolley corridor to Colony Drive. Two other sewer lines extend off-site to the south from the pipe within Alvarado Creek.

4.12.1.4 Storm Water Drainage System

The City's storm water drainage system includes approximately 53 miles of concrete and corrugated metal storm drain pipeline (City 2012a). Storm water runoff in the northern half of the City drains to the San Diego River watershed and to the San Diego Bay watershed in the southern half of the City. The project site is located within the San Diego River watershed.

The project is developed and has extensive impervious surfaces. Nearly all rainfall can be expected to become runoff because of limited opportunities for infiltration. Typical runoff response from highly impervious areas is flashy with high peak flow rates for short durations. Storm water runoff from the project site is conveyed to Alvarado Creek via surface flow and storm drain inlets.

4.12.1.5 Electric Power

San Diego Gas & Electric (SDG&E) is the owner and operator of electricity transmission, distribution, and natural gas distribution infrastructure in San Diego County, and currently provides electric and gas services to the project site. The SDG&E service area covers 4,100 square miles within southern California. Energy is provided by SDG&E to 3.6 million customers through 1.4 million electric meters and 873,000 natural gas meters (SDG&E 2020).

SDG&E supplies customers with electricity generated both locally and outside of the utility's service territory, with local facilities currently capable of generating a total of approximately 3,100 megawatts (MW) of power. SDG&E owns and contracts with generation facilities both within and outside its service territory, and power is also produced in local facilities that are non-utility owned. Local generation is important for local power supply needs due to the voltage support it provides that keeps the electric system running smoothly.

Table 4.12-1, *SDG&E 2018 Power Mix*, lists SDG&E's energy sources and the most recent available data of the power mix of those energy sources. As shown, SDG&E used biomass, solar, and wind sources, and obtained 44 percent of its energy from renewable resources in 2018 (California Energy Commission [CEC] 2019). As directed by the California Renewables Portfolio Standard in SB 1078, SDG&E and other statewide energy utility providers are targeted to achieve a 33 percent renewable energy mix by 2020 and 50 percent by 2030.

Table 4.12-1
SDG&E 2018 POWER MIX

Energy Source	Power Mix (%)
Renewables	43
Biomass	2
Solar	20
Wind	21
Natural Gas	29
Unspecified	27

Source: CEC 2019

Currently, there are no local mandated standards or ordinances requiring reliance on alternative energy by new developments. Title 24 of the California Public Resources Code contains energy efficiency requirements for residential and commercial uses that the project would be required to adhere to.

Existing 12-kilovolt overhead electrical lines extend across most of the site. These lines currently cross over I-8, the central portion of the site, and up to Keeney Street in a generally north-south alignment.

4.12.1.6 Natural Gas

Natural gas is imported into the San Diego region by pipeline after being produced at any of several major supply basins located from Texas to Alberta, Canada. Although the San Diego region has access to all of these basins by interstate pipeline, the final delivery into the SDG&E system is dependent on just one Southern California Gas Company (SoCalGas) pipeline that enters San Diego County from Orange County located along I-5.

Natural gas consumption by sector varies somewhat each year. In general, power plants account for the highest percentage of natural gas consumption in the San Diego region. Residential consumption of natural gas for heating and cooking is the second highest percentage, followed by cogeneration, commercial and industrial consumption, and natural gas fueled vehicles.

A 16-inch-diameter gas line traverses the southern portion of the project site in generally an east-west alignment and extends off the site.

4.12.1.7 Communications

Communications systems for telephones, computers, and cable television are serviced by utility providers such as Cox, AT&T, Spectrum, and other independent cable companies. Facilities are located above and below ground within private easements. In recent years, the City has initiated programs to promote economic development through the development of high-tech infrastructure and integrated information systems. The City also works with service providers to underground overhead wires, cables, conductors, and other overhead structures associated with communication systems in residential areas in accordance with proposed development projects.

Existing overhead communications lines extend across most of the site. These lines currently cross over I-8, the central portion of the site, and up to Keeney Street in a generally north-south alignment.

4.12.1.8 Solid Waste Management

Solid waste disposal is provided by EDCO Waste and Recycling, a private franchise hauler which handles all residential, commercial, and industrial collections within the City. Waste is collected and hauled to the Otay Landfill, located at 1700 Maxwell Road in Chula Vista. Otay Landfill is a privately owned facility operating under a permit from the state with local enforcement by the County DEH. According to the Solid Waste Information System (SWIS) database maintained by the California Department of Resources Recycling and Recovery (CalRecycle), the Otay Landfill had a remaining capacity of approximately 21,194,008 cy of solid waste as of May 2016. Based on the remaining capacity and disposal rates, the Otay Landfill is expected to close in February 2030 (CalRecycle 2020a).

Another landfill, Sycamore Landfill, provides disposal capacity within the region. The Sycamore Landfill is located at 8514 Mast Boulevard in the city of San Diego. The SWIS database indicates that the Sycamore Landfill has a remaining capacity of 113,972,637 cy as of December 2016 and is expected to close in December 2042 (CalRecycle 2020b).

The City has implemented an aggressive effort to curb the amount of waste headed to landfills. Working with EDCO, recycling of most categories of waste is available for all residences and commercial establishments located in the City.

4.12.2 Regulatory Setting

4.12.2.1 Federal

Safe Drinking Water Act

The Safe Drinking Water Act (SDWA), passed by Congress in 1974, authorizes the federal government to set national standards for drinking water. These National Primary Drinking Water Regulations protect against both naturally occurring and man-made contaminants. Enforceable maximum contaminant levels (MCLs) for drinking water also resulted from the SDWA. All water providers in the United States, excluding private wells serving fewer than 25 people, must treat water to remove contaminants.

The 1986 amendments to the SDWA and the 1987 amendments to the CWA established the USEPA as the primary authority for water programs throughout the country. The USEPA is the federal agency responsible for providing clean and safe surface water, groundwater, and drinking water, and protecting and restoring aquatic ecosystems.

4.12.2.2 State

Senate Bill 610 and 221

SB 610 and SB 221 went into effect in January 2002 with the intention of linking water supply availability to land use planning by cities and counties. SB 610 requires water suppliers to prepare a Water Supply Assessment (WSA) report for inclusion by land use agencies during the CEQA process for new developments subject to SB 221. SB 221 requires water suppliers to prepare written verification that sufficient water supplies are planned to be available prior to approval of a large-scale subdivision of land under the State Subdivision Map Act. Large-scale projects include the following:

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

Integrated Waste Management Act

The California Integrated Waste Management Act (IWMA) of 1989 (California AB 939), which is administered by CalRecycle, requires counties to develop an Integrated WMP (IWMP) that describes local waste diversion and disposal conditions, and lays out realistic programs to achieve the waste diversion goals. IWMPs compile Source Reduction and Recycling Elements (SRREs) that are required to be prepared by each local government, including cities. SRREs analyze the local waste stream to determine where to focus diversion efforts and provide a framework to meet waste reduction mandates. The goal of the solid waste management efforts is not to increase recycling, but to decrease the amount of waste entering landfills. AB 939 required all cities and counties to divert a minimum 50 percent of all solid waste from landfill disposal. In 2011, the State legislature enacted AB 341 (PRC Section 42649.2), increasing the diversion target to 75 percent statewide. AB 341 also requires the provision of recycling service to commercial and residential facilities that generate four cy or more of solid waste per week.

4.12.2.3 Local

Urban Water Management Plans

Urban water purveyors are required to prepare and update an UWMP every five years. UWMPs address water supply, treatment, reclamation, and water conservation, and contain a water shortage contingency plan. UWMPs prepared by local water districts supplement the regional plans prepared by the San Diego County Water Authority and the Metropolitan Water District. Urban retail water suppliers must develop a water-use target and report on progress toward achieving the target.

MWD's 2015 UWMP describes and evaluates sources of water supply, efficient uses of water, demand management measures, implementation strategies and schedules, and other relevant information and programs. Information from MWD's UWMP is used by local water suppliers in the preparation of their own plans. The information included in MWD's UWMP represents the district's most current planning projections of demand and supply capability developed through a collaborative process with the member agencies.

The Water Authority developed its 2015 UWMP in coordination with its 24 member agencies. The main components of the UWMP include baseline demand forecasts under normal weather, dry weather and climate change scenarios; conservation savings estimates and net water demand projections; a water supply assessment; supply reliability analysis; and scenario planning.

HWD developed a 2015 UWMP, which was adopted by the HWD's Board of Directors in 2016 (HWD 2016). The 2015 UWMP provides an overview of the water system; quantifies existing and projected water uses and water use targets; addresses water supply sources, reliability, and shortages; and outlines conservation strategies.

San Diego County Integrated Waste Management Plan

Pursuant to the state's Integrated Waste Management Act, the County prepared a Countywide Integrated Waste Management Plan that was approved on June 25, 1997. The County consistently provides Five-Year Review Reports to document adherence to the plan and any additional updates. A total of four Five-Year Review Reports have been released since the approval of the original report, with the most recent one released in August 2017 (County Department of Public Works 2017). The Countywide Integrated Waste Management Plan includes goals, policies, and objectives for coordinating regional efforts to divert, market, and dispose of solid waste. County policies and programs are included in local jurisdiction's Source Reduction and Recycling Element and Household Hazardous Waste Element. Regional cooperation encourages a coordinated and planned approach to integrated waste management.

City of La Mesa Municipal Code

Title 7, *Health and Sanitation*, of the La Mesa Municipal Code includes regulations related to waste management and storm water control. Title 14, *Building Regulations*, covers topics related to construction, energy efficiencies, and waster-conserving landscaping. Title 17, *Sewers*, covers sewage collection and disposal. Title 21, *Public Utilities*, and Title 26, *Cable Communications Franchise Ordinance*, cover public utilities and cable communication services, respectively.

4.12.3 Methodology and Assumptions

Potential impacts to public utilities resulting from implementation of the proposed project were evaluated based on relevant regulations and development guidelines, existing conditions, data on existing facilities and projected capacity needs found in online documentation and the CalRecycle SWIS Database, the WSA prepared for the project (Fuscoe 2020c; Appendix M), the sewer study prepared for the project (Fuscoe 2020b; Appendix L), and the drainage study prepared for the project (Fuscoe 2020a; Appendix I).

4.12.4 Significance Thresholds

According to Appendix G of the CEQA Guidelines a significant impact related to public utilities would occur if implementation of the proposed project would result in any of the following:

1. Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

2. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

3. Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

4. Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

5. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

4.12.5 Impact Analysis

4.12.5.1 Utilities

Threshold 1: Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Water

The project would connect to an existing 10-inch-diameter water main within Alvarado Road for potable water service. HWD provided a letter to the City confirming that it has the capacity and capability to provide water service to the project site (HWD 2018). Based on the availability and suitability of existing water infrastructure to serve the project, the project would not result in the need for new or expanded water facilities. Impacts to water distribution facilities would be less than significant.

Wastewater

Sewer system improvements are proposed as part of the project, including relocating an existing sewer trunk line within Alvarado Creek out of the channel and under the proposed internal access road, raising and capping an existing manhole within Alvarado Creek, removal of portions of existing on-site sewer lines, and construction of new on-site sewer lines. The proposed sewer utility improvements are included as part of the project and potential impacts related to these sewer utility improvements are addressed by the environmental analysis of this EIR. The improvements would not result in environmental effects aside from those outlined in this EIR.

Sewer Capacity

The project site is located in the Alvarado Wastewater Drainage Basin, and wastewater from the project area is conveyed to the Alvarado Trunk Sewer located within Alvarado Road, which consists of a 21-inch diameter VCP. The proposed project would include two new connections, or points of confluence (POC), to the Alvarado Trunk Sewer to serve the project—one at the western end of the site, just west of the proposed western access drive (POC A) and one at the eastern end of the site, just east of the proposed eastern access drive (POC B). Segments of the Alvarado Trunk Sewer along the project frontage of

Alvarado Road generally between POC A and POC B were analyzed to determine potential impacts to the capacity of the existing wastewater system resulting from the project. Proposed on-site sewer lines, which would be eight inches in diameter, were also analyzed to determine if they could accommodate flows generated by the project.

For the Alvarado Trunk Sewer analysis, existing wastewater peak design flow rates under both dry and wet weather conditions were obtained from the City of La Mesa Wastewater Collection System Master Plan (City 2008). Since completion of the aforementioned wastewater master plan, development has continued to occur within the Alvarado Wastewater Drainage Basin. In order to account for this subsequent development (including both constructed and planned developments), wastewater flows generated by such development were calculated and added to the existing flows. Where the subsequent developments resulted in an increase in sewer flows, this was added to the existing flows entering the site. Sewer flows that would be generated by the proposed project at buildout were then calculated and added to the existing plus subsequent developments flows entering the site. For the proposed on-site sewer analysis, only flows from subsequent development and the proposed project were considered since these lines do not currently exist.

Sewer flow rates were calculated using a generation rate of 180 gallons per day (gpd) per multi-family dwelling unit, as specified in the City of La Mesa Wastewater Master Plan (City 2008). Because proposed Building 2 is conservatively planned as student housing, residential units within this building would have more beds than a typical multi-family development. Thus, wastewater flows for proposed Building 2 were calculated using a generation rate for boarding schools from the 2018 Uniform Plumbing Code of 100 gpd per bed. Peaking factors for project flows were based on the City of San Diego Sewer Guide and used a conservative value of 3.5 population per dwelling unit. Calculations were performed using the Flowmaster software program. The results of this analysis are shown below in Table 4.12-2, *Wastewater Flow Results in Existing and Proposed Conditions*.

Table 4.12-2
WASTEWATER FLOW RESULTS IN EXISTING AND PROPOSED CONDITIONS

Line No.	Weather Condition	Existing Conditions Peak Design Flow (CFS)	Existing Conditions dn (feet)	Existing Conditions dn/D	Proposed Conditions Peak Design Flow (CFS)	Proposed Conditions dn (feet)	Proposed Conditions dn/D
Alvarado Trunk Sewer Lines							
PA0013.05	Dry	5.54	0.72	0.41	5.71	0.79	0.45
	Wet	6.09	0.72	0.41	6.27	0.84	0.48
PA0012.05	Dry	5.54	0.71	0.41	5.71	0.78	0.45
	Wet	6.09	0.71	0.41	6.27	0.82	0.47
PA0011.05	Dry	5.54	0.70	0.40	5.71	0.78	0.45
	Wet	6.09	0.70	0.40	6.27	0.82	0.47
PA0010.05	Dry	5.54	0.71	0.41	5.71	0.78	0.45
	Wet	6.09	0.71	0.41	6.27	0.82	0.47
PA0009.05	Dry	5.54	0.61	0.35	5.71	0.67	0.38
	Wet	5.54	0.61	0.35	6.27	0.70	0.40
PA0008.05	Dry	5.54	0.75	0.43	6.36	0.71	0.41
	Wet	6.09	0.79	0.45	6.92	0.93	0.53

Table 4.12-2 (cont.)
WASTEWATER FLOW RESULTS IN EXISTING AND PROPOSED CONDITIONS

Line No.	Weather Condition	Existing Conditions Peak Design Flow (CFS)	Existing Conditions dn (feet)	Existing Conditions dn/D	Proposed Conditions Peak Design Flow (CFS)	Proposed Conditions dn (feet)	Proposed Conditions dn/D
Proposed On-site Sewer Lines							
PA008.01	Dry	--	--	--	0.02	0.04	0.06
	Wet	--	--	--	0.02	0.04	0.06
PA009.01	Dry	--	--	--	0.23	0.16	0.24
	Wet	--	--	--	0.23	0.16	0.24
PA009.02	Dry	--	--	--	0.23	0.16	0.24
	Wet	--	--	--	0.23	0.16	0.24
PA009.03	Dry	--	--	--	0.23	0.17	0.26
	Wet	--	--	--	0.23	0.17	0.26
PA0008.17	Dry	--	--	--	0.09	0.10	0.15
	Wet	--	--	--	0.09	0.10	0.15
PA0008.16	Dry	--	--	--	0.52	0.24	0.36
	Wet	--	--	--	0.52	0.25	0.38
PA0008.15	Dry	--	--	--	0.52	0.24	0.36
	Wet	--	--	--	0.52	0.25	0.38
PA0008.14	Dry	--	--	--	0.52	0.24	0.36
	Wet	--	--	--	0.52	0.25	0.38
PA0008.13	Dry	--	--	--	0.52	0.23	0.35
	Wet	--	--	--	0.52	0.23	0.35
PA0008.13b	Dry	--	--	--	0.11	0.12	0.18
	Wet	--	--	--	0.11	0.12	0.18
PA0008.12	Dry	--	--	--	0.62	0.30	0.45
	Wet	--	--	--	0.63	0.30	0.45
PA0008.11	Dry	--	--	--	0.62	0.31	0.47
	Wet	--	--	--	0.63	0.30	0.45
PA0008.10	Dry	--	--	--	0.65	0.31	0.47
	Wet	--	--	--	0.66	0.31	0.47

Source: Fuscoe 2020b
CFS = cubic feet per second, dn = depth of flow, dn/D = depth of flow to pipeline diameter ratio

Pursuant to the City's Wastewater Collection System Master Plan (City 2008), a dn/D ratio of less than 0.75 is required for pipes greater than 15 inches in diameter, and less than 0.50 is required for pipes at 15 inches or less in diameter. The dn/D ratio is the depth of flow within a pipeline divided by the diameter of the pipeline and provides a measure of a pipeline's operating capacity as a percentage. If a pipeline has a dn/D ratio of 0.50, it means that the pipeline at 50-percent capacity.

As shown in Table 4.12-2, under proposed conditions, the maximum dn/D ratio for Alvarado Trunk Sewer lines would be 0.53 under wet weather conditions and 0.45 under dry weather conditions, which would not exceed the maximum dn/D ratio of 0.75 for pipes greater than 15 inches. The maximum dn/D ratio for the proposed on-site sewer lines would be 0.47 under wet weather and dry weather conditions, which would not exceed the maximum dn/D ratio of 0.50 for pipes at 15 inches or less in

diameter. Based on the estimated project flows combined with both existing flows and subsequent developments, the existing and proposed sewer systems would have capacity to serve the project.

Downstream Wet Weather Capacity

Downstream of the project site, the Alvarado Trunk Sewer connects to the City of San Diego sewer system at a metering manhole west of 70th Street. Flows at this metering manhole have exhibited large spikes during wet weather conditions, resulting in overflows and near overflows. A downstream wet weather capacity analysis was conducted to evaluate whether the proposed project could exacerbate this condition.

Under existing conditions, approximately 1,035 linear feet of existing 15-inch and eight-inch VCP and five manholes occur within Alvarado Creek at the project site. As part of the project, the existing sewer lines within Alvarado Creek would be abandoned and the flows entering from the south would be rerouted through to the project site to the Alvarado Trunk Sewer in Alvarado Road. Two manholes would be required in Alvarado Creek where the sewer lines from the south are intercepted. These manholes would be reconstructed with watertight, elevated lids to prevent the intrusion of stormwater into the manholes.

To assess the condition of the existing sewer lines in Alvarado Creek and the project site, video inspection of the existing sewer lines was performed. Evidence of infiltration into the sewer lines were found at multiple locations. Removal of the existing sewer lines and manholes from within Alvarado Creek would reduce infiltration and interception into the sewer system, which would help alleviate wet downstream weather flow spikes. Thus, the project would not substantially contribute to, or exacerbate existing downstream sewer system capacity impacts.

Conclusion

While some sewer line relocations and improvements within and adjacent to the project site are proposed (new connection points, removal/abandonment of existing lines and manholes, raising sewer manholes, and new on-site sewer lines), implementation of the project would not require the relocation or construction of new or expanded wastewater treatment facilities. Impacts would be less than significant.

Storm Water Drainage

As discussed in Section 4.7, *Hydrology and Water Quality*, of this EIR, the project site comprises two major drainage basins. Basin 1 encompasses approximately 4.5 acres and consists of the area to the east of where Alvarado Creek bisects the site, while Basin 2 is approximately 7.7 acres and consists of the area to the west of Alvarado Creek.

To analyze project impacts on the existing storm drain system, peak runoff flow rates and times of concentrations[1] were calculated for the 100-year storms under the existing and proposed drainage patterns on the project site. With implementation of the proposed project, the peak discharge under the 100-year storm event would decrease in Basin 1 but would increase in Basin 2 primarily due to the slight

[1] Time of concentration is a concept used in hydrology to measure the response of a watershed to a rain event. It is defined as the time needed for water to flow from the most remote point in a watershed to the watershed outlet and is a function of the topography, geology, and land use within the watershed.

increase in impervious surfaces and the decreased time of concentration (Fuscoe 2020a). However, the project would provide on-site drainage features, including detention basins, grass-lined swales, catch basins, and storm drains that have been sized for the 100-year storm. Therefore, the proposed storm drain system for the project would have sufficient capacity to convey the 100-year storm event without causing flooding on or off the site. While new storm water drainage facilities would be constructed within the project site in conjunction with the project, the proposed facilities would connect to the existing municipal storm drain system, the capacity of which would not be adversely affected by the project. Therefore, implementation of the project would not require the relocation or construction of new or expanded storm water drainage facilities. Impacts related to stormwater drainage would be less than significant.

Electric Power and Natural Gas

Electric and natural gas utilities exist in the area and such service is currently provided to the existing uses on the project site. There are existing 12-kilovolt overhead power lines that extend across the project site. The lines currently cross over I-8, the central portion of the site, and up to Keeney Street in a general north-south alignment. The portion of the overhead power lines that cross the site would be relocated underground in the western end of the site as part of the project. Relocation of the electric power utilities would not result in environmental effects aside from those outlined in this EIR. While some electric power line relocations would occur within the project site in conjunction with the project, the relocated lines would connect to the existing electric power distribution system, the capacity of which would not be adversely affected by the project.

Similarly, the project would connect to existing gas lines within the project area and would not adversely affect the capacity of the existing gas distribution system. A 16-inch-diameter gas line traverses the southern portion of the project site in generally an east-west alignment and extends off the site. A portion of this existing line that would be under the buildings would be removed.

Therefore, implementation of the project would not require the relocation or construction of new or expanded electric power or natural gas distribution facilities. Impacts would be less than significant.

Telecommunications Systems

There are existing communications overhead lines that extend across the project site on the same facilities and alignment as the existing overhead electric power lines discussed above. The lines currently cross over I-8, the central portion of the site, and up to Keeney Street in a general north-south alignment. The portion of the overhead telecommunications utility lines that cross the site would be relocated underground in the western end of the site. The relocation of these telecommunication utilities is included as part of the project and potential impacts related to the relocation of such utilities are addressed by the environmental analysis of this EIR. Relocation of the telecommunication utilities would not result in environmental effects aside from those outlined in this EIR. While some telecommunication line relocations would occur within the project site in conjunction with the project, the relocated lines would connect to the existing telecommunications distribution system, the capacity of which would not be adversely affected by the project. Therefore, implementation of the project would not require the relocation or construction of new or expanded telecommunication facilities. Impacts would be less than significant.

4.12.5.2 Water Supply

Threshold 2: Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

A WSA was prepared for the proposed project (Fuscoe 2020c) in compliance with SB 610 to assess whether sufficient water supplies would be available to meet the projected water demands of the proposed project during a normal, single-dry year, and multiple-dry year period during a 20-year projection. The WSA identifies existing water supply entitlements, water rights, water service contracts or agreements relevant to the identified water supply for the proposed project, and quantities of water received in prior years pursuant to those entitlements, rights, contracts, and agreements.

The MWD and the Water Authority have developed water supply plans to improve reliability and reduce dependence upon existing imported supplies. MWD's RUWMP and IWRP, and the Water Authority's 2015 UWMP and annual water supply report include water infrastructure projects that meet long-term supply needs through securing water from the State Water Project, Colorado River, local water supply development, and recycled water.

As demonstrated in the WSA, there is sufficient water planned to supply the proposed project's estimated annual average usage. The expected potable water demand generated by the project at buildout is 179,949 gallons per day or 201.5 acre-feet per year. This represents an increase of approximately 147 acre-feet per year (AFY) as compared to existing water demands. To estimate future water demands, HWD uses land use data from the SANDAG Series 13 Regional Growth Forecast, which is SANDAG's projection of land use, population, and economic growth through the year 2050. The HWD 2015 UWMP utilized the La Mesa General Plan to estimate future demand projections associated with the project. For the Specific Plan area, the General Plan land use designation is Regional Serving Commercial. This land use designation allows for retail shopping centers, large office complexes and uses providing services to the traveling public such as restaurants, service stations, hotels, and motels. In addition, mixed-use or high-density residential developments would also be permitted. Therefore, it is anticipated that similar water demands to those of the proposed project were incorporated into HWD's 2015 UWMP.

The 147 AFY increase in demand is also accounted for through the accelerated forecasted growth demand increment of the Water Authority's 2015 UWMP. As documented in the Water Authority's 2015 UWMP, the Water Authority is planning to meet future and existing demands, which include the demand increment associated with the accelerated forecasted growth. The Water Authority will assist its member agencies in tracking the environmental documents provided by the agencies that include WSAs and verifications reports that utilize the accelerated forecasted growth demand increment to demonstrate supplies for the development. In addition, the next update of the demand forecast for the Water Authority's 2020 UWMP will be based on SANDAG's most recently updated forecast, which will include the project. Therefore, based on the findings from the HWD's 2015 UWMP and the Water Authority's 2015 UWMP, the proposed project would result in no unanticipated demands on water supply.

The Water Authority's 2015 UWMP provides for a comprehensive planning analysis at a regional level and includes water use associated with accelerated forecasted development as part of its municipal and industrial sector demand projections. These housing and commercial units were identified by SANDAG in the course of its regional housing needs assessment but are not yet included in existing general land use

plans of local jurisdictions. The demand associated with accelerated forecasted residential development is intended to account for SANDAG's land use development currently projected to occur between 2035 and 2050 but has the likely potential to occur on an accelerated schedule. SANDAG estimates that this accelerated forecasted residential and commercial development could occur within the planning horizon (2015 to 2035) of the 2015 UWMP. This land use is not included in local jurisdictions' general plans, so their projected demands are incorporated at a regional level. When necessary, this additional demand increment, termed accelerated forecasted growth, can be used by the Water Authority's member agencies to meet the demands of development projects not identified in the general land use plans.

The WSA concluded that the proposed project is consistent with the water demands assumptions included in the regional water resource planning documents of HWD, Water Authority, and MWD. Current and future water supplies, as well as the actions necessary to develop these supplies, have been identified in the water resources planning documents of HWD, Water Authority, and MWD to serve the projected demands of the Specific Plan area, in addition to the existing and planned future water demands of HWD. Impacts related to water supply would be less than significant.

4.12.5.3 Wastewater

Threshold 3: Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

The City of La Mesa is a member of the Metro Wastewater Joint Powers Authority (MWJPA), a coalition of agencies that utilize the Point Loma Wastewater Treatment Plant (WTP) operated by the City of San Diego. Wastewater generated within the City is collected by the City's sewer service and then conveyed to the Point Loma WTP located at the south end of the Point Loma peninsula. The Point Loma WTP treats approximately 175 mgd of wastewater generated in a 450-square-mile area by more than 2.2 million residents. Located on a 40-acre site on the bluffs of Point Loma, the WTP has a treatment capacity of 240 mgd (City of San Diego 2020). The Point Loma WTP is owned and operated by the City of San Diego and allows 15 other municipalities, including La Mesa, to purchase allocations of wastewater treatment capacity at the plant.

The project would increase wastewater generation at the site due to the construction of additional housing units. Based on the sewer generation rates used in the sewer capacity analysis described in Section 4.12.5.1 (180 gpd per multi-family dwelling unit and 100 gpd per bed for student housing), the project would generate 181,100 gpd of wastewater. Given an existing remaining treatment capacity of 65 mgd (240 mgd total capacity less the current 175 mgd of treated effluent) at the Point Loma WTP, the project's increase would represent less than one percent of the WTP's remaining capacity. Therefore, the Point Loma WTP has adequate capacity to serve the project's projected demand in addition to its existing commitments. Impacts would be less than significant.

4.12.5.4 Solid Waste Management

Threshold 4: Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Threshold 5: Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

The proposed project would generate solid waste and recycling during both the construction and operation of the project. Consistent with Title 14.27, *Construction and Demolition Debris Diversion*, of the City's Municipal Code, a minimum of 75 percent of construction and demolition debris generated by the proposed project would be diverted from the landfill by reuse on site, recycling, salvation or donation, thereby minimizing the amount of construction solid waste that ends up in the landfill.

During operation, the proposed project would divert at least 75 percent of operational waste from landfills through reuse and recycling in accordance with AB 341 and provide areas for storage and collection of recyclables and yard waste in accordance with 2019 Title 24 Part 11 CALGreen Standards. Following such standards would ensure that the project would also comply with Title 7.22, *Mandatory Recycling*, of the City's Municipal Code and AB 939, which mandates that 50 percent of solid waste generated be diverted from landfill disposal through source reduction, recycling, or composting. Once constructed, solid waste and recycling generated from the project site would be typical of that generated by similar residential uses, and could potentially include small amounts of hazardous materials, as discussed in Section 4.6, *Hazards and Hazardous Materials*, of this EIR. Landscaping would be designed to reduce green waste generation.

The project site would be serviced by EDCO, which maintains a current contact with the City, and all waste would be disposed of at either the Sycamore Landfill or the Otay Landfill. Based on the 2017 Five-Year Review Report of the Countywide Integrated Solid Waste Management Plan prepared for San Diego County pursuant to AB 939, the County has sufficient landfill capacity to accommodate disposal for at least the next 15 years, which meets the state requirements that the County maintains a minimum of 15 years of future disposal capacity. Therefore, the project would not generate solid waste in excess of state or local standards or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. It would also comply with federal, state, and local management and reduction statutes and regulations related to solid waste. Impacts related to solid waste management would be less than significant.

4.12.6 Mitigation Measures

4.12.6.1 Utilities

No significant impacts related to the relocation or construction of new or expanded utilities infrastructure would result from implementation of the proposed project. Therefore, no mitigation measures are required.

4.12.6.2 Water Supply

No significant impacts related to water supplies available to serve the project and reasonably foreseeable future development would result from the implementation of the proposed project. Therefore, no mitigation measures are required.

4.12.6.3 Wastewater

No significant impacts related to wastewater treatment capacity would result from the implementation of the proposed project. Therefore, no mitigation measures are required.

4.12.6.4 Solid Waste Management

No significant impacts related to solid waste management would result from the implementation of the proposed project. Therefore, no mitigation measures are required.

4.12.7 Significance Determination

The significance of public utilities impacts before and after mitigation is summarized in Table 4.12-3, *Significance Determination Summary of Public Utilities Impacts*. Implementation of the proposed project would not result in any significant impacts to public utilities. Impacts related to utilities, water supply, wastewater, and solid waste management would be less than significant, and no mitigation is required.

Table 4.12-3
SIGNIFICANCE DETERMINATION SUMMARY OF PUBLIC UTILITIES IMPACTS

Issue	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
Utilities	Less than significant	None required	Less than significant
Water Supply	Less than significant	None required	Less than significant
Wastewater	Less than significant	None required	Less than significant
Solid Waste Management	Less than significant	None required	Less than significant