4.17 Utilities and Service Systems

This section describes the existing utilities conditions of the project site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project.

Methods for Analysis

The analysis is based on the following technical reports prepared for the proposed project:

- Sewer Study for San Diego State University Mission Valley Project prepared by Rick Engineering Company (Appendix 4.17-1).
- Water System Analysis for the San Diego State University Mission Valley Project, prepared by Dexter Wilson Engineering Inc. (Appendix 4.17-2).
- On Site Drainage Study for SDSU Mission Valley Campus prepared by Rick Engineering Company (Appendix 4.17-3).
- Off Site Drainage Study for SDSU Mission Valley Campus prepared by Rick Engineering Company (Appendix 4.17-4).
- Water Use Estimation for the SDSU Mission Valley Campus Master Plan Project prepared by Dexter Wilson Engineering, Inc. (Appendix 4.17-5).
- In addition, the following plans and reports were reviewed and included in the following analysis: 2015 Urban Water Management Plan (UWMP), prepared by the San Diego County Water Authority (SDCWA 2016).
- 2015 UWMP, prepared by Metropolitan Water District of Southern California (MWD) (Metropolitan 2016; incorporated by reference).
- 2015 UWMP, prepared by City of San Diego Public Utilities Department (City of San Diego 2016a).
- Water Supply Assessment Report for the Mission Valley Community Plan Update Project, prepared by City of San Diego Public Utilities Department (City of San Diego 2018).

The above plans and reports incorporated by reference are available for public inspection and review at SDSU upon request. They are also available online at agency websites.

Summary of Notice of Preparation Comments

A Notice of Preparation was circulated from January 19, 2019 to February 19, 2019. A total of 150 letters were received during this comment period. Comments received related to utilities addressed existing water and sewer lines, water supplies and assessments, water treatment, water conservation, rainwater runoff reuse, changes in impervious surfaces, stormwater drainage facilities, and demolition waste.

4.17.1 Existing Conditions

Wastewater

Wastewater collection and treatment services are provided by the Wastewater Branch of the City of San Diego (City) Public Utilities Department. The City wastewater system consists of two components:

- The Metropolitan Sewerage Sub-System treats the wastewater from the City and 15 other cities and districts from a 450-square-mile area. An average of 160 million gallons per day (mgd) of wastewater is treated. Planned improvements will increase wastewater treatment capacity to serve an estimated population of 2.8 million through the year 2050.
- The Municipal Wastewater Collection Sub-System is responsible for the collection and conveyance of wastewater from residences and businesses in the City, serving a 330-square-mile area.

The City's wastewater facilities include the Point Loma Wastewater Treatment Plant (Point Loma WWTP), the North City Water Reclamation Plant, the South Bay Water Reclamation Plant, and the Metro Biosolids Center. The Point Loma WWTP would serve the proposed project and treats approximately 150 mgd of wastewater and has a treatment capacity of 240 mgd. The existing wastewater system exits the existing SDCCU Stadium at seven separate locations through 8-inch- and 6-inch-diameter pipelines. An 8-inch-diameter vitrified clay pipe that was constructed in 1966 circles the outside of the Stadium, collecting wastewater from these seven locations. This pipe feeds into an 18-inch-diameter PVC lateral that was rebuilt in 1990 and flows westerly from the 8-inch-diameter collector pipe to another 18-inch-diameter PVC pipe located on the western side of the project site that flows to the south. An existing 8-inch-diameter sewer main enters the property from the north and connects at the same manhole where the two 18-inch pipes connect. The 18-inch-diameter pipeline has a capacity of 4.3 mgd. The 18-inch pipe continues south along the western side of the site until it joins with existing City infrastructure, the North Mission Valley Interceptor Sewer. This infrastructure is a 78-inch- to 84-inch-diameter plastic-lined reinforced-concrete pipe that runs east to west near the southern property boundary. It then discharges to the 108-inch-diameter North Metro Interceptor, which conveys wastewater to Pump Station Number 2, where it is then pumped to the Point Loma WWTP for treatment (City of San Diego 2015). See Figure 4.17-1, Existing Sewer System.

Water Supply

The following existing conditions discussion is taken from the City's Final Program Environmental Impact Report (EIR) for the Mission Valley Community Plan Update (SCH No. 2017071066) (City of San Diego 2019a). The proposed project is geographically situated within the Mission Valley Community Plan area.

Metropolitan Water District

The MWD is Southern California's wholesale water provider. The MWD service area is approximately 5,200 square miles and includes the counties of Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura. There are 26 member agencies of the MWD, including 14 cities and 11 municipal water districts. MWD owns and operates the Colorado River Aqueduct, and the Colorado River is one of MWD's two main water sources. Under the priority system that governs the distribution of Colorado River water made available to California, MWD holds the fourth priority right of 550,000 acre-feet per year (afy) (Metropolitan 2016).

MWD's second major water source is the State Water Project, owned by the State of California and operated by the DWR. The State Water Project's supply originates in Northern California with water captured from the Feather River

Watershed behind Lake Oroville Dam. MWD is the largest, in terms of population served, of the 29 agencies that have long-term contracts for water service from DWR. MWD's contract with DWR provides for the ultimate delivery of 1,911,400 afy, which is 46% of the total State Water Project entitlement (Metropolitan 2016).

MWD's existing water supplies have been historically sufficient to meet demands within its service area during years of normal precipitation, and while it manages reserve supplies to account for normal drought conditions, regulatory actions have placed limitations on its ability to provide water to its member agencies. Future population growth, regulatory restrictions, increased competition for low-cost water supplies, and other factors such as climate change could impact MWD's ability to supply its member agencies even in normal years.

San Diego County Water Authority

The San Diego County Water Authority (SDCWA) is one of the member agencies of MWD. SDCWA is the countywide wholesaler and is made up of 24 public member agencies stretching from the United States/Mexico border to the Orange County and Riverside County borders. SDCWA owns and operates five large-diameter pipelines to deliver imported water to its member agencies. SDCWA has embarked on a multi-year emergency storage plan to provide up to 6 months of emergency water supplies in the event of a system failure or other issue with receiving imported water from MWD (SDCWA 2016).

In November 2012, SDCWA's Board of Directors approved a 30-year water purchase agreement with Poseidon Resources, a private investor-owned company, to purchase water from the proposed Carlsbad Desalination Plant. The plant and conveyance pipeline were completed in 2015 and, as of 2018, meet approximately 10% of the region's water demand (SDCWA 2016).

The SDCWA has encouraged the development of local water supply projects, such as water recycling and groundwater projects, through the award of Local Water Supply Development incentives. The Local Water Supply Development Program sets a maximum contribution rate of $200 per acre-foot yielded by each local project. This rate can be revisited and adjusted periodically by the Board of Directors (SDCWA 2016).

City of San Diego Public Utilities Department

The City's Public Utilities Department (PUD) is one of the public member agencies of the SDCWA and serves a population of 1.33 million, which is expected to increase about 1% annually over the next 25 years. The PUD's water system extends over 404 square miles and includes both potable and recycled water facilities. The City's water system has nine reservoirs, two water reclamation plants, three water treatment plants, and 29 treated water storage facilities. The City's water system is split into three major service areas: Miramar, Alvarado, and Otay.

The Mission Valley Community Plan area lies within the PUD's Alvarado service area. The Alvarado Water Treatment Plant (WTP) was originally constructed in 1951 and has a current capacity of 224,028 afy. Of the City's nine reservoirs, the El Capitan, San Vicente, Sutherland, and Lake Murray Reservoirs (236,311 acre-feet [af] total capacity) serve the Alvarado WTP in central San Diego. Lake Hodges Reservoir, with a total capacity of 30,251 af, is connected to Olivenhain Reservoir, which is owned by the SDCWA; water from the Lake Hodges Reservoir can be delivered to any City treatment plant. The Alvarado WTP generally serves the geographical area from National City to the San Diego River (City of San Diego 2018).

Surface Water

The PUD maintains and operates nine reservoirs that capture surface water runoff from rainfall within local watersheds. These nine reservoirs provide approximately 19% of the City's total water supply. In the San Diego region, approximately 13% of local precipitation produces surface runoff to streams that contribute to these reservoirs. Approximately half of this runoff evaporates during reservoir storage, while the other half is used for the municipal water supply. Most of the runoff to reservoirs is produced in years with much greater than average rainfall. As with the local climate, average rainfall is about the minimum required to saturate the soils sufficiently for significant surface runoff (City of San Diego 2018) .

In addition to availability, the use of local surface water is affected by water resource management policies. The PUD's policy is to use local water first to reduce imported water purchases. The PUD also operates emergency and seasonal storage programs in conjunction with its policy. The purpose of emergency storage is to maintain an accessible amount of stored water that could provide an uninterrupted supply of water to the City's water treatment facilities, should an interruption to the supply of imported water occur. The purpose of seasonal storage is to store surplus imported water in the wet winter season for use during the dry summer season. The PUD may also increase use of imported water, in lieu of local water, in the winter so local water may be saved in reservoirs or groundwater basins for summer use (City of San Diego 2018).

Recycled Water

While the PUD has historically imported nearly all of its water from the SDCWA, it also strives to use more local surface water, recycled water, and conservation efforts to meet or offset potable demands. Recycled water is wastewater that has undergone additional treatment to make it suitable for a range of beneficial uses. Recycled water has been used in the City for almost 20 years and is produced by two water reclamation plants: the North City Water Reclamation Plant and the South Bay Water Reclamation Plant. The total wastewater treatment capacity of the two plants is 50,406 afy. Landscape irrigation continues to be the leading use of recycled water, but the customer base has become more varied over the years with an increase in the number of industrial and dual plumbed meter connections (City of San Diego 2018).

The City's Pure Water San Diego Program (Pure Water), approved by City Council in 2014, is intended to provide a reliable drinking water supply that is locally controlled and drought proof. The program will use advanced water treatment processes to turn recycled water into water of equal or greater quality than the imported sources. The Morena Pump Station and Influent Sewers of the Pure Water project are planned for the westernmost edge of the Mission Valley Community Plan area and will undergo a separate environmental review process from the proposed Mission Valley Community Plan Update. Pure Water will be implemented in phases and is expected to be completed by 2035 (City of San Diego 2018).

Conservation

Established by the City Council in 1985, the Water Conservation Program has accounted for more than 31,240 af of potable water savings. These savings have been achieved by adopting programs, policies, and ordinances designed to promote water conservation practices, and by implementing comprehensive public information and education campaigns. The City offers a broad range of conservation tactics to help meet the needs of residential and commercial water customers. These tactics include the following:

- Rebate programs for high efficiency toilets, washing machines, and commercial water saving devices;

- Rebates for replacing grass with sustainable landscapes and micro-irrigation systems;
- Residential interior/exterior and commercial landscape survey programs; and
- Public education and outreach.

Planning efforts to increase water conservation are an ongoing process, and these conservation programs undergo periodic reevaluation to ensure the realization of forecasted savings. Table 4.17-1 shows the breakdown of how surface water, conservation, and recycled water have aided water demands in San Diego from 1990 to 2010 (City of San Diego 2018).

Table 4.17-1. San Diego Public Utilities Department Historic Imported, Local, and Recycled Water Demands[1]

Fiscal Year	Imported Water (af)	Local Surface Water (af)	Conservation[2] (af)	Recycled Water (af)	Total[3] (af)
1990	233,158	22,500	-	-	255.658
1995	162,404	59,024	8,914	-	230,324
2000	207,874	39,098	17,410	3,250	267,632
2005	204,144	26,584	29,410	4,294	264,432
2010	188,337	13,117	34,317	12,173	247,944

Source: City of San Diego 2018.
Notes: af = acre-feet.
1 Includes retail and wholesale demands.
2 Conserved water results in savings and is not a direct supply.
3 Total includes water supplied and conserved.

Water Distribution

The PUD's water system consists of more than 3,300 miles of pipelines, including transmission lines up to 84 inches in diameter and distribution lines as small as 4 inches in diameter. Transmission lines are pipelines 16 inches and larger in diameter that convey raw water to the water treatment plants and convey treated water from the water treatment plants to treated water storage facilities. Distribution lines are pipelines 16 inches and smaller in diameter that directly service the retail users connected to a meter. In addition, the PUD maintains and operates 49 water pump stations that deliver treated water from the water treatment plants to more than 276,000 metered service connections in 130 different pressure zones. The PUD also maintains several emergency connections to and from neighboring water agencies, including the following:

- Santa Fe Irrigation District (Miramar WTP);
- City of Poway (Miramar WTP);
- Olivenhain Municipal Water District (Miramar WTP);
- Cal-American Water Company (Alvarado and Otay WTP);
- Sweetwater Authority (Otay WTP); and
- Otay Water District (Otay WTP).

The North City Water Reclamation Plant is located in the Miramar area, and treats an average of 18,482 afy of wastewater, although the plant has an ultimate treatment capability of 33,604 afy. The Northern Service Area distribution system consists of 91 miles of recycled water pipeline, two reservoirs, and two pump stations, with

service to 574 meters. The South Bay Water Reclamation Plant is located near the international border with Mexico, and treats an average of 8,961 afy of wastewater, although the plant has a treatment capability of 16,802 afy. The Southern Service Area distribution system consists of 3 miles of recycled water pipeline, one storage tank, one pump station and seven meters. There are currently no recycled water facilities or conveyances within the Mission Valley Community Plan area.

Potable Water Service

This section is based on the reporting of Dexter Wilson Engineering. (Appendix 4.17-2) regarding existing and proposed water infrastructure improvements on the project site.

There are existing public water facilities within and directly adjacent to the project site. The existing facilities are part of the University Heights 390 Pressure Zone and the Normal Heights 536 Pressure Zone. There are existing 12-inch-diameter lines in Friars Road, San Diego Mission Road, and Camino del Rio North. There is a 16-inch-diameter water line in San Diego Mission Road east of Mission Village Drive. This 16-inch-diameter water line extends from the south side of the San Diego River and traverses the existing property. An existing 48-inch-diameter 536 Pressure Zone transmission pipeline runs through the existing site as well. This transmission pipeline runs from the southeast area of the site to the northwest area.

There is an existing pressure reducing station (PRS) within the existing Stadium site (On-site PRS). The On-site PRS feeds the 390 Pressure Zone from the 536 Pressure Zone via a 16-inch-diameter line from the aforementioned on-site 48-inch-diameter pipeline. Another 536/390 Pressure Zone PRS is located near the intersection of Friars Road and Stadium Way west of the project site (Friars Road PRS). This PRS is supplied from the 48-inch-diameter 536 Pressure Zone transmission pipeline. This PRS feeds the existing 12-inch-diameter 390 Pressure Zone water line in Friars Road. There are other PRSs which supply the 390 Pressure Zone; however, the other stations are further from the stadium property and do not influence service to the stadium site to the extent of the On-site PRS and the Friars Road PRS (Appendix 4.17-2). Figure 4.17-2, Existing Potable Water System, shows the existing public water facilities in the vicinity of the project site.

Storm Water

The project site is located in the San Diego River Watershed, an area of 440 square miles that drains to the San Diego River and discharges to the Pacific Ocean at the community of Ocean Beach. The river generally flows from the northeast to the southwest through urban areas and is the project site's receiving waters, located along the southern project site boundary. Stormwater runoff from the project site is conveyed directly to the San Diego River via three existing underground storm drain systems. The easterly system is comprised of 24-inch- to 30-inch- to 36-inch-diameter reinforced-concrete pipes (RCPs) running north to south through the existing Stadium's east parking lot. The middle system consists of a 24-inch to 36-inch RCPs draining south from the existing Stadium to drain the Stadium structure and playing surface, and the westerly system is comprised of 18-inch- to 24-inch- to 30-inch-diameter RCPs, to a 4-foot by 2-foot reinforced concrete box culvert, to a 36-inch-diameter RCP that drains the western portion of the site. The majority of stormwater runoff sheet flows across the site to the nearest inlet and is conveyed directly into one of these three existing storm drain systems. All three of the storm drain systems flow through the existing North Mission Valley Trunk Sewer along the southern boundary. Each storm drain section through the sewer consists of a 34-inch-diameter steel pipe encased in a 36-inch-diameter steel sleeve and all three systems outlet to the river in separate 36-inch-diameter RCPs (City of San Diego 2015). See Figure 4.17-3, Existing Storm Drain System.

Solid Waste

Solid waste disposal at the existing SDCCU Stadium is provided by the City of San Diego Environmental Services and private collectors (Allied Waste/Republic Services). For full/sold out events in the existing Stadium, the site utilizes 150 40-yard dumpsters and 150 portable restrooms. For smaller events, the dumpsters and restrooms are reduced proportionately. Solid waste management involves collection, disposal, and diversion from disposal (City of San Diego 2015).

The closest landfill to the proposed project is the Miramar Landfill. It is located in Kearny Mesa and owned/operated by the City of San Diego Environmental Services Department. The Miramar Landfill receives approximately 870,000 tons of trash per year. At this rate of disposal, the Miramar Landfill, which is the only City-run landfill, will likely be filled to capacity and close by 2030 (City of San Diego 2019b).

Additional active solid waste landfills within the San Diego County include Borrego Springs Landfill, Otay Landfill, Sycamore Landfill, San Onofre Landfill, and Las Pulgas Landfill. Of these, the two closest facilities are Sycamore Landfill and Otay Landfill. Sycamore Landfill is located approximately 12 miles from the site, with a remaining capacity of approximately 114 million cubic yards (cy) as of 2016. The Sycamore Landfill is permitted to receive a maximum of 5,000 tons per day and has a maximum permitted capacity of 148 million cy with a projected closing date of December 31, 2042 (CalRecycle 2019a).

Otay Landfill is located approximately 18 miles from the project site, with a remaining capacity of approximately 21 million cy as of 2016. This landfill is permitted to receive a maximum of 6,700 tons per day with a maximum permitted capacity of 61 million cy. The projected closing date is February 28, 2030 (CalRecycle 2019b).

Electric Power

The existing electrical service for the SDCCU Stadium is fed from two 12-kilovolt electrical services. The primary or preferred service comes onto the project site from the north, and the alternate or back-up service comes onto the project site from the southwest. The on-site power distribution facilities from these two services would need to be relocated or extended (approximately 500 feet within the Stadium parking lot) on site to serve the new multipurpose stadium. There are existing electrical facilities owned by Metropolitan Transit System that serve the trolley Stadium Station (City of San Diego 2015).

Natural Gas

The existing natural gas service to SDCCU Stadium is fed from one 2-inch-diameter high-pressure gas line that is fed from a 3-inch-diameter high-pressure gas line located in Friars Road. This line enters the Stadium on the western side (City of San Diego 2015).

Telecommunications

The existing communications systems for SDCCU Stadium include telephone facilities owned by AT&T and fiber-optic facilities owned by AT&T and Cox Communications. AT&T fiber-optic facilities enter from Friars Road/Mission Village Drive in the north and enter the Stadium on the west side. AT&T also has telephone facilities that cross on the east side of the Stadium site from north to south and enter the Stadium from the east side. Cox Communications also has fiber-optic facilities that enter the Stadium from the eastern side of the project site (City of San Diego 2015).

4.17.2 Relevant Plans, Policies, and Ordinances

Federal

Clean Water Act

Section 303 of the Clean Water Act requires states to identify surface waters that have been impaired. Under Section 303(d), states, territories, and authorized tribes are required to develop a list of water quality segments that do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology (33 USC 1251 et seq.). Section 402 of the Clean Water Act established the National Pollutant Discharge Elimination System (NPDES) to regulate the discharge of pollutants from point sources.

State

California Recycled Water Policy

On February 3, 2009, the State Water Resources Control Board (SWRCB) adopted a statewide recycled water policy, with the ultimate goal to increase the use of recycled water from municipal wastewater sources. Included in the statewide policy is the mandate to increase the use of recycled water in California by 1.5 million afy by 2020, and an additional 2.5 million afy by 2030 (SWRCB 2018). The plan also states that the SWRCB expects to develop other policies to encourage stormwater, surface, and groundwater use to promote water conservation. The SWRCB adopted an amendment to the Recycled Water Policy on January 22, 2013, which establishes monitoring requirements for constituents of emerging concern in recycled municipal wastewater.

California Green Building Standards Code

California Green Building Standards Code (CALGreen) requires new buildings in the State to become more efficient by requiring new development to meet minimum standards (CALGreen 2016). The City adopted CALGreen through its most recent Land Development Code (Chapter 14 Article 10). For new residences, CALGreen requires installation of low water use required fixtures (showerheads, bathroom and kitchen faucets, and toilets). For dishwashers and clothes washers, the Environmental Protection Agency WaterSense program was referenced. WaterSense also publishes criteria for overall indoor water use akin to CALGreen. Similar to residential indoor water use, non-residential indoor water use is mandated by CALGreen through the installation of low water use fixtures.

Water Conservation Act of 2009

The Water Conservation Act (Water Code Section 10608) (Senate Bill [SB] X7-7) requires all water suppliers to increase water use efficiency. This legislation sets an overall goal of reducing per capita urban water use, compared to 2009 use, by 20% by December 31, 2020. The state was required to make incremental progress towards this goal by reducing per capita water use by at least 10% on or before December 31, 2015. Each urban retail water supplier also was required to develop urban water use targets and an interim urban water use target by July 1, 2011.

Agricultural water suppliers also were required to implement efficient water management practices including adoption of agricultural management plans by December 31, 2012, and updated plans by December 31, 2015, and every five years thereafter. Effective 2013, agricultural water suppliers not in compliance with these planning requirements are ineligible for state water grants or loans.

Water Supply Assessments and Written Verifications of Water Supply

State legislation has improved the link between water supply and land use planning. SB 610 (Water Code Sections 10910 et seq.; SB 610) requires that, before approving any projects as defined in Water Code Section 10912, any "city or county," acting as lead agency under CEQA, must request a "water supply assessment" from the urban water supplier most likely to serve the project site (Water Code Section 10910(b), (c)).[1] Thus, water supply assessments apply to projects proposing any of the following:

- Residential developments of more than 500 dwelling units;
- Shopping centers or business establishments employing more than 1,000 persons or having more than 500,000 square feet of floor space;
- Commercial office buildings employing more than 1,000 persons or having more than 250,000 square feet of floor space;
- Hotels, motels, or both, having more than 500 rooms;
- Industrial, manufacturing, or processing plants, or industrial parks planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area;
- Mixed-use projects that include one or more of the projects specified in Water Code Section 10912, subdivision (a); or
- Projects that would demand an amount of water equivalent to or greater than the amount of water required by a 500-dwelling-unit project.

The water supply assessment evaluates water supplies that are or will be available in normal, single-dry, and multiple-dry years during a 20-year planning horizon, and determines whether such supplies can meet existing and planned future demands, including the demand associated with a proposed project.

SB 221 (Government Code Sections 66455.3 and 66473.7; SB 221) requires a city, county, or local agency to include a condition to any tentative subdivision map that a sufficient water supply must be available to serve the subdivision. The term "sufficient water supply" is defined as the total water supplies available during normal, single-dry, and multiple-dry years within a 20-year planning horizon that would meet the subdivision project's estimated water demand, and the demand from existing and planned future water uses (including agricultural and industrial uses) within the specified service area (Water Verification). SB 221 also requires verification of projected water supplies to be based on entitlement contracts, capital outlay programs, and regulatory permits and approvals.

Urban water suppliers can use their most recent UWMP as a foundational document in completing SB 610 water supply assessments and SB 221 Water Verifications.[2]

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1 Based on the applicable law, not every project is subject to the requirements of SB 610. (SB 610 amended the Water Code at Division 6, Part 2.10, to add Sections 10910-10915 to the Water Code.) For example, as lead agency under CEQA, CSU is not required by law to prepare water supply assessments for campus master plan projects undergoing CEQA review because Water Code Section 10910 requires any "city or county, acting as a lead agency under CEQA," to request a "water supply assessment" from the urban water supplier most likely to serve the project site. (Water Code Section 10910(b),(c).) CEQA is consistent with Water Code Section 10910. (See Public Resources Code Section 21151.9.) CSU is not a city or county, but rather a state agency. In any case, CSU has considered the WSA already prepared for the Mission Valley Community Master Plan Update. This WSA encompasses the entire Mission Valley Community Plan area, including the SDSU Mission Valley Campus Master Plan project site.

2 California Department of Water Resources, 2015 Urban Water Management Plans Guidebook for Urban Water Suppliers, March 2016.

California Urban Water Management Planning Act

The California Urban Water Management Planning Act (Water Code Sections 10610–10656) requires certain urban water suppliers that provide water to 3,000 or more customers, or provide over 3,000 af of water annually, to make every effort to ensure the appropriate level of reliability in its water service to meet the needs of its customers during normal, dry, and multiple-dry years. The Act requires reliability information be reported in the UWMP, which must be updated every five years, and describes the required contents of a UWMP, as well as how urban water suppliers should adopt and implement UWMPs.

State and local agencies and the public frequently use UWMPs to determine if agencies are planning adequately to reliably meet water demands in various service areas. As such, UWMPs serve as an important element in documenting water supply availability and reliability for purposes of complying with state laws, SB 610 and SB 221, which link water supply sufficiency to certain land-use development project approvals.

California Code of Regulations Article 22.5, Drought Emergency Water Conservation (Emergency Declaration and Executive Orders)

In response to California's drought conditions, in January 2014, Governor Brown proclaimed a state of emergency and directed state officials to take all necessary action to make water available. In addition, Governor Brown issued numerous Executive Orders regarding water conservation commencing in 2014. Executive Order B-37-16, issued in May 2016, extends the mandatory water reduction measures outlined in previous Executive Order B-29-15 and further directs the DWR and State Water Board to develop long-term efficiency targets that go beyond the 20% reductions mandated by SB X7-7, discussed above. The Executive Order also establishes longer-term water conservation measures that include permanent monthly water use reporting, new urban water use targets, reducing system leaks and eliminating wasteful practices, strengthening urban drought contingency plans, and improving agricultural water management and drought plans.

In addition, in May 2016, the State Water Board revised emergency regulations in consideration of improved hydrologic conditions. The prior percentage reduction-based water conservation standard was replaced by a localized "stress-test" approach, which requires local water agencies to ensure a three-year supply under three more dry years like the State experienced from 2012–2015. Water agencies that would face shortages under three additional dry years are required to meet a conservation standard equal to the amount of shortage. In November 2016, state agencies, including the State Water Board, released a public draft of *Making Water Conservation A California Way of Life*, which addresses elements of Executive Order B-37-16 that require state agencies to develop a framework for using water more wisely, eliminating water waste, strengthening local drought resilience, and improving agricultural water use efficiency and drought planning.[3]

Due to more recent improved hydrologic conditions statewide, in April 2017, Governor Brown issued Executive Order B-40-17 lifting the drought emergency in all but four California counties.[4] Executive Order B-40-17 rescinds the Drought Emergency Proclamations issued in January and April 2014 as well as four drought-related Executive Orders issued in 2014 and 2015. However, Executive Order B-40-17 also directs the State Water Board to maintain urban water use reporting requirements and prohibitions on wasteful practices. Water agencies will continue to strengthen drought

[3] California State Water Resources Control Board, Water Conservation Portal—Emergency Conservation Regulation, State Plan Seeks to Make Water Conservation A Way of Life, November 30, 2016, www.waterboards.ca.gov/water_issues/programs/conservation_portal/docs/2016nov/pr113016_water_efficiency_report.pdf, accessed April 3, 2017.

[4] The Counties of Fresno, Kings, Tulare, and Tuolumne remain under a drought state of emergency, per Executive Order B-40-17

readiness and water use efficiency.[5] The regulatory requirements resulting from the existing Executive Orders have been codified in California Code of Regulations Article 22.5, Drought Emergency Water Conservation.

Pueblo Water Rights

A Pueblo Right is the "paramount" right of an American City as a successor of a Spanish or Mexican pueblo to the use of water naturally occurring within the old pueblo limits for the use of the inhabitants of a City (*City of Los Angeles v. Pomeroy* (1899) 124 Cal. 597). Furthermore, the Pueblo Right is superior to every other right, including riparian and appropriative rights, and cannot be lost (City of San Diego, 2015b).

A Pueblo Right attaches to the use of all surface and groundwaters of the streams that flowed through an original pueblo, including their tributaries, from their source to their mouth (*City of San Diego v Cuyamaca Water Co.* (1930) 29 Cal. 152). The City of San Diego's Pueblo Rights attaches to the waters of the San Diego River system, including percolating groundwater that is interconnected with the San Diego River (City of San Diego, 2015b).

For any source of water to which its Pueblo right attached, the City of San Diego is entitled to take "to the extent of the needs of its inhabitants." (*Feliz v. Los Angeles* (1881) 58 Cal. 73). As a Pueblo water rights holder, the City of San Diego has the highest priority right to use as much of the native flow of the San Diego River as is reasonably necessary to meet the City's present and future needs (City of San Diego, 2015b).

The SDSU Mission Valley Campus Master Plan project does not propose to divert water from the San Diego River or pump groundwater. Accordingly, it is not expected to affect the City's Pueblo Rights.

Assembly Bill 939

Assembly Bill (AB) 939 established an integrated waste management hierarchy to guide the California Integrated Waste Management Board and local agencies in the implementation of programs geared at source reduction, recycling and composting, and environmentally safe transformation and land disposal. AB 939 also included waste diversion mandates that require all cities and counties to divert 50% of all solid waste through source reduction, recycling, and composting activities (CalRecycle 2001).

Assembly Bill 75

AB 75 requires all state agencies and large state facilities to develop and implement an integrated waste management plan. AB 75 also requires all state agencies and large state facilities to divert at least 25% of their solid waste from landfills by January 1, 2002, and at least 50% on and after January 1, 2004 (CalRecycle 1997).

Assembly Bill 341

AB 341 builds from the goals and requirements of AB 939. AB 341 establishes a statewide policy goal of diverting a minimum of 75% of solid waste from landfills through source reduction, recycling, or composting by the year 2020. This bill also required the California Department of Resources Recycling and Recovery (CalRecycle) to issue a report by January 1, 2014, that included strategies, methods, and recommendations that would enable the state to reach the 75% waste diversion goal by 2020 (CalRecycle 2015).

[5] Governor Brown Lifts Drought Emergency, Retains Prohibition on Wasteful Practices, Executive Order B-40-17.

Local

Because SDSU is a component of the California State University (CSU), which is a state agency, the proposed project is not subject to local government planning and land use plans, policies, or regulations. However, for informational purposes, the proposed project has considered these planning documents and the project's site location within, and relationship to, each. The proposed project would be subject to state and federal agency planning documents described above, but would not be subject to regional or local planning documents such as the City's General Plan, Mission Valley Community Plan, or City municipal zoning code.

City of San Diego General Plan

The City General Plan's Public Facilities, Services, and Safety Element (City of San Diego 2008) provides objectives, policies, and programs regarding utilities, including the following.

Wastewater

- **Policy PF-F.5** Construct and maintain facilities to accommodate regional growth projections that are consistent with sustainable development policies.

Storm Water Infrastructure

- **Policy PF-G.1** Ensure that all storm water conveyance systems, structures, and maintenance practices are consistent with federal Clean Water Act and California Regional Water Quality Control Board NPDES Permit Standards.
- **Policy PF-G.2** Install infrastructure that includes components to capture, minimize, and/or prevent pollutants in urban runoff from reaching receiving water and potable water supplies.
- **Policy PF-G.5** Identify and implement BMPs [best management practices] for projects that repair, replace, extend or otherwise affect the storm water conveyance system. These projects should also include design considerations for maintenance, inspection, and, as applicable, water quality monitoring.

Water Infrastructure

- **Policy PF-H.2** Provide and maintain essential water storage, treatment, supply facilities and infrastructure to serve existing and future development.
- **Policy PF-H.3** Coordinate land use planning and water infrastructure planning with local, state, and regional agencies to provide for future development, maintain adequate service levels, and develop water supply options during emergency situations.
    a. Plan for a water supply and emergency reserves to meet peak load demand during a natural disaster such as a fire or earthquake.
    b. Plan for water supply and emergency reserves recognizing anticipated Climate Change impacts.
    c. Recognize the water/energy nexus. Plan and implement water projects after consideration of their energy demands in coordination with energy suppliers to minimize and optimize the energy impact of projects.

Waste Management

- **Policy-I.1** Provide efficient and effective waste collection services.
  a. Encourage waste reduction and recycling with source-separated collection of materials.
  b. Provide space for recycling containers and efficient collection.
- **Policy PF-I.2** Maximize waste reduction and diversion
  a. Conveniently locate facilities and informational guidelines to encourage waste reduction, diversion, and recycling practices.
  b. Operate public and private facilities that collect and transport waste and recyclable materials in accordance with the highest environmental standards.
  c. Support resource recovery programs that produce soil additives, mulch, or compost from yard debris and organic waste.
  d. Maximize the separation of recyclable and compostable materials.
  e. Collaborate with public and private entities to support the development of facilities that recycle materials into usable products or that compost organic materials.
  f. Reduce and recycle Construction and Demolition (C&D) debris. Strive for recycling of 100 percent of inert C&D materials and a minimum of 50 percent by weight of all other material.
  g. Use recycled, composted, and post-consumer materials in manufacturing, construction, public facilities and in other identified uses whenever appropriate.
  h. Encourage advance disposal fees to prevent the disposal of materials that cause handling problems or hazards at landfills.
  i. Provide sufficient information on the movement of waste and recyclable materials to meet regulatory requirements at public and private transfer stations and materials recovery facilities to allow adequate planning.
  j. Reduce subsidies to disposal and encourage incentives for waste diversion.
  k. Promote manufacturer and retailer responsibility to divert harmful, reusable, and recyclable products upon expiration from the waste stream.
  l. Encourage the private sector to build a mixed construction and demolition waste materials recycling facility.
  m. Expand and stabilize the economic base for recycling in the local and regional economy by encouraging and purchasing products made from recycled materials.
  n. Continuously assess new technologies for recycling, composting, cogeneration, and disposal to maximize efficient use of City resources and environmental protection.
- **Policy PF I.5** Plan for sufficient waste handling and disposal capacity to meet existing and future needs. Evaluate existing waste disposal facilities for potential expansion of sites for new disposal facilities.

Urban Water Management Plans

In 2016, the City adopted the 2015 UWMP, which identifies projected water supplies required to meet future water demands through the year 2035 (City of San Diego 2016a). According to the City's 2015 UWMP, no water shortages are forecasted through 2040 because projected potable water demands would be met using a combination of recycled water, local surface supply, groundwater, and purchased water from the SDCWA (City of San Diego 2016a).

Also in 2016, the SDCWA adopted its own 2015 UWMP (SDCWA 2016). The SDCWA's UWMP uses the most recent regional growth forecast from the San Diego Association of Governments (SANDAG) to calculate regional water demands. SANDAG's regional growth forecasts are based on population forecasts, projected housing forecasts, and other growth forecasts provided by the member cities. The City's 2015 UWMP provides information on the City's current and future water demands and supplies, discusses the water resource challenges that the City faces, and summarizes the major water resource initiatives that the City has undertaken to ensure a safe, reliable water supply for its customers. Specifically, the plan details the City's water system, water demands, sources of water supplies, water conservation efforts, climate change impacts, energy intensity, water shortage contingency planning, and projected water supply reliability during normal/average, dry, and multi-year drought conditions (see Sections 1-10, 2015 UWMP).

The City's Public Utilities Department prepared the Water Supply Assessment Report for the Mission Valley Community Plan Update project (City of San Diego 2018). The City's 2015 UWMP, which was developed in collaboration with SDCWA and adopted by the San Diego City Council in June 2016, serves as the basis for the 2018 Water Supply Assessment (WSA) for the Mission Valley Community Plan Update. The 2018 WSA evaluates water supplies that are or will be available during normal/average year, single-dry year, and multiple-dry water years during a 20-year projection to meet the projected demands of the Mission Valley Community Plan Update, in addition to existing and planned future water demands of the City's Public Utilities Department. The 2018 WSA covers the entire Mission Valley Community Plan area, which includes the proposed SDSU Mission Valley Campus Master Plan project site.

SDCWA's 2015 UWMP was prepared in accordance with the Urban Water Management Planning Act and includes the conservation measures, programs, and policies required by Water Code Section 10608.36. The 2015 UWMP serves as SDCWA's long-term planning document to ensure a reliable water supply for the San Diego region. In accordance with its Administrative Code, SDCWA also prepares annual water supply reports to provide updated information on development of local and imported water supplies.

The 2015 UWMP provides important information on SDCWA's service area characteristics, including the region's economy and demographics, climate, population, and studies and research on climate change and water supply planning (Section 1, 2015 UWMP). The plan describes the region's water supplies and demands (Sections 2-6, 2015 UWMP). The plan also evaluates water quality and describes integrated regional water management planning (Sections 7-8, 2015 UWMP). Importantly, the 2015 UWMP analyzes the region's water supply reliability in average/normal, dry-year, and multiple dry-year conditions (Section 9, 2015 UWMP); and evaluates planning scenarios to respond to drought and climate change conditions (Section 10, 2015 UWMP). The plan includes details on the multi-year drought affecting California since 2012 and the State's drought-related emergency regulations (Section 11, 2015 UWMP).

California law requires water agencies to update their UWMPs every 5 years. Accordingly, the City and SDCWA updated their UWMPs in 2015 to reflect new development projects and assess any ongoing water supply issues, such as drought and climate change.

City of San Diego Drought Policies

In 2011, the City implemented permanent mandatory restrictions to promote water conservation as a permanent way of life in San Diego. The following measures apply year-round, regardless if the City is in a drought (City of San Diego 2016b):

- City of San Diego water customers must prohibit excessive irrigation and must immediately correct leaks in their private water systems.
- Customers cannot use a running hose to wash down sidewalks, driveways, parking areas, buildings, awnings, windows, tennis courts, patios or other hard surface areas, except to alleviate immediate safety or sanitation hazards.
- Overfilling of swimming pools and spas is strictly prohibited.
- All decorative water fountains must use a recirculating pump.
- Residents washing vehicles (automobiles, trucks, trailers, boats, RVs) must implement procedures to conserve water and prevent excessive runoff, such as:
    - Washing vehicles at a commercial car wash.
    - Washing vehicles on a lawn or pervious surface or directing water flow to a lawn or pervious area.
    - Damming wash water for collection and disposal to a pervious area or to the sanitary sewer.
    - Using a hose with an automatic shutoff nozzle.
    - Using a hand-held water container.
- The City will not provide new water service connections for customers using single pass-through cooling systems.
- All new conveyer car wash and commercial laundry systems connections will be required to employ a recirculating water system.
- Restaurants and other food establishments shall only serve and refill water for patrons upon request.
- Guests in hotels, motels, and other commercial lodging establishments will be provided the option of not laundering towels and linens daily.

Level 1 Drought Alert Conditions

In Level 1 Water Emergencies, San Diegans are asked to reduce, voluntarily, excessive irrigation and restrict landscape irrigation and car washing to before 10 a.m. or after 6 p.m. Level 1 "Drought Watch" conditions also include, but are not limited to, the following voluntary water use restrictions (City of San Diego 2016b):

- Limit watering of landscapes to no more than 3 days per week.
- When watering without an irrigation system, use either a hand-held hose with a shutoff valve or a garden hose sprinkler system on a timer.
- Washing of vehicles is limited to the same seasonal schedule as irrigation: before 10 a.m. or after 6 p.m. in the summer and after 4 p.m. in the winter (except for boats, which may be washed after use; vehicles for health and/or safety issues; or when washing at a commercial carwash that recycles water).
- No watering/irrigating during rain events.
- Recycled water should be used for construction purposes, when available.
- Construction operations may only use water for normal construction activities, consistent with San Diego Municipal Code Section 67.3803 and requirements by regulatory agencies.
- Use of water from fire hydrants will be limited to firefighting, construction, health and safety.

Level 2 Drought Alert Conditions

Conservation rules associated with Level 2 Drought Alert conditions include, but are not limited to, the following mandatory water use restrictions:

- All water use restriction of Level 1 drought water conditions.
- Limit all landscape irrigation to no more than 3 assigned days per week on a schedule established and posted by the city manager.
- Limit lawn watering and landscape irrigation using sprinklers to no more than 10 minutes maximum per watering station per assigned day from June to October (does not apply to water-efficient devices).
- Limit lawn watering and landscape irrigation using sprinklers to no more than 7 minutes maximum per watering station per assigned day from November to May (does not apply to water efficient devices).
- Stop operation of ornamental fountains, except to the extent needed for maintenance purposes.
- Use of water from fire hydrants will be limited to firefighting, meter installation by the Public Utilities Department as part of its Fire Hydrant Meter Program, and related activities necessary to maintain the health, safety, and welfare of the citizens of San Diego.
- Construction operations receiving water from a fire hydrant or water truck will not use water beyond normal activities.
- A Level 2 declaration also allows the city manager (upon resolution of the San Diego City Council) to implement a water allocation per customer account served by the City and a schedule of penalties for exceeding the water allocation (City of San Diego 2016b).

Countywide Integrated Waste Management Plan

The Countywide Integrated Waste Management Plan consists of a Countywide Siting Element, a Countywide Summary Plan, and three elements (source reduction and recycling, household hazardous waste disposal, and non-disposal facility locations) from each. The Siting Element requires that the County's landfills demonstrate remaining capacity of at least 15 years to serve all jurisdictions. The Summary Plan contains waste management policies and goals, and it summarizes the diversion programs at the County and local level implemented to meet and maintain the 50% diversion mandate required by AB 939 (County of San Diego 2005). The County publishes 5-year review reports for the Countywide Integrated Waste Management Plan that provide updates to goals and relevant jurisdictional information. The most recent County of San Diego Countywide Five-Year Review Report was published in September 2012; it provides jurisdictional demographic changes and waste generation rates through 2010 (County of San Diego 2012).

SDSU Waste Disposal Practices and Programs

Facilities Services custodial and landscape services staff collects general recycling and waste from across campus. To improve sorting, recycling containers use clear bags and landfill containers use black bags. Custodians place the bins into their carts and then to the dumpsters. Recycling containers and dumpsters are blue while landfill containers and dumpsters are typically black. This provides a chain of custody throughout the process to ensure that recyclables end up at a recycling facility and get turned into new items. EDCO is SDSU's local recycler and hauler. Post-consumer composting is not yet available campus-wide. Associated Students has a pilot project to do limited composting on campus. SDSU Environmental Health & Safety collects batteries, bulbs and hazardous waste (SDSU 2019).

City of San Diego Recycling Programs

The City maintains an active, citywide recycling program governed by the City's Recycling Ordinance. The San Diego City Council initially approved the Ordinance on November 20, 2007, and requires recycling of plastic, glass bottles and jars, paper, newspaper, metal containers, and cardboard (City of San Diego 2019c). The Recycling Ordinance applies to all single-family residences, apartments, and condominium complexes with 50 or more units, commercial buildings with 10,000 square feet or more, and all special events requiring a permit from the City. Effective January 1, 2010, the Recycling Ordinance applies to all apartment and condominium complexes and all commercial facilities (City of San Diego 2019c). In response to AB 341, the City updated the Recycling Ordinance, effective July 2012, requiring all privately serviced multifamily properties, commercial/business facilities, and institutions to recycle if they generate more than 4 cubic yards of waste per week (City of San Diego 2019c). Residential recyclables placed in City-issued blue collection bins are collected by Environmental Services Department staff.

The City's Construction and Demolition Debris Diversion Deposit Program is intended to increase the diversion of construction and demolition debris from landfill disposal and conserve the capacity and expand the life of Miramar Landfill (City of San Diego 2019d). Although not applicable to SDSU, the program requires contractors applying for a building or grading permit to pay a refundable deposit at the issuance of the permit. The contractor can recover the deposit once it submits satisfactory evidence to the director of the Environmental Services Department showing that at least 100% (by weight) of construction or demolition debris generated by development of the proposed project was diverted to a certified recycling facility (City of San Diego 2019d). The Environmental Services Department maintains a list of certified recycling facilities in the County (City of San Diego 2019d).

Mission Valley Community Plan

The Mission Valley Community Plan is intended to be a blueprint for future development in the Mission Valley community of San Diego, where the proposed project is located. A second Working Draft of the Mission Valley Community Plan Update was released on February 6, 2019 (City of San Diego 2019e). The Final Mission Valley Community Plan Update Program EIR was released on May 31, 2019, and the Final Draft Mission Valley Community Plan Update was released in July 2019. The plan contains design guidelines and policies for development to implement the City's Climate Action Plan, maximize transit ridership, and increase mobility options, among others. While the Mission Valley Community Plan Update has not yet been adopted by the City of San Diego, it is considered in this analysis.

4.17.3 Significance Criteria

The significance criteria used to evaluate the project impacts to utilities and service systems are based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to utilities and service systems are based on whether the project would:

1. 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. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.
3. 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. 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. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

4.17.4 Impacts Analysis

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?

Construction

As discussed below, construction of the proposed project would require infrastructure improvements, the construction of which could cause environmental effects. Impacts associated with these improvements are discussed for each environmental resource in this EIR, specifically, Sections 4.1, Aesthetics; 4.2, Air Quality; 4.3, Biological Resources; 4.5, Energy; 4.6, Geology and Soils; 4.7, Greenhouse Gas Emissions; 4.8, Hazards and Hazardous Materials; 4.9, Hydrology and Water Quality; 4.10, Land Use and Planning; 4.11, Mineral Resources; 4.12, Noise; 4.14, Public Services and Recreation; 4.15, Transportation; and 4.18, Wildfire.

As discussed in Sections 4.2, Air Quality; and 4.12, Noise, construction impacts would remain significant and unavoidable, even with implementation of mitigation measures. However, the analysis herein is meant to determine if impacts to utilities and infrastructure would occur as part of implementation of the proposed project. Therefore, air quality and noise impacts are not considered impacts associated with this threshold.

The proposed project would result in an incremental increase in demand of water, wastewater services, and other utilities. It is anticipated that the proposed project would require new points of connection for domestic water, fire water, stormwater, sewer, electricity, telecommunications, and natural gas from the existing utility lines. All proposed connections to existing utility infrastructure would be sized to adequately serve anticipated project buildout. Similarly, all existing utilities that the proposed project would connect to are adequately sized to serve the proposed project without the need to expand. (See Sewer Study, EIR Appendix 4.17-1; and Water System Analysis, EIR Appendix 4.17-2). Further, the project site and surrounding areas are highly urbanized and are currently served by existing utility infrastructure. The proposed project would not be extending any utility or service system into undeveloped areas that are currently unserved by utilities. Therefore, impacts would be **less than significant**.

Operation

Water Treatment Plants

The City's three water treatment plants (Miramar, Alvarado, and Otay) have a total treatment capacity of 294 mgd. Water delivered to the project area is treated at the Alvarado Treatment Plant, which is located northeast of the project site adjacent to Lake Murray. The Alvarado Treatment Plant was recently expanded to increase its treatment capacity to 200 mgd. Expansion of the Alvarado Treatment Plant was undertaken in order to meet current and future water needs of the Alvarado service area. The projected water treatment needs of the Alvarado service area are based primarily on the number of existing and projected water department customers residing in the service area. Existing and projected customer data is based on land uses identified in local planning documents, including general plans and community plans (City of San Diego 2015).

Project Water Demand

As shown in Table 4.17-2, Projected Daily Water Demand, at buildout, the proposed project would result in a water demand of approximately 693,343 gallons per day (gpd) (or 776 afy), which represents approximately 024% of the Alvarado Treatment Plant capacity.

The Dexter Wilson Water Use Estimation technical memorandum (EIR Appendix 4.17-5; July 2019) calculates the SDSU Mission Valley Campus Master Plan project's water demand, using three methodologies. The first methodology, which is based on the City Water Department's Facility Design Guidelines (Book 2; 2014), estimates water use for the project site at 1,595,190 gpd (or 1,787 afy). However, Dexter Wilson reports that this estimate is likely "overly conservative" because several completed developments within the City have been shown to use less water than calculated in the City's Facility Design Guidelines. For that reason, Dexter Wilson turned to two other methodologies in determining a more realistic water use estimate for the proposed project.

The second methodology, which is based on the City's WSA water use factors, provided a "more accurate" estimate of water use for the proposed project compared to the City's Facility Design Guidelines (Methodology 1). Methodology 2 calculated the proposed project's water demand at 1,287,914 gpd or 1,443 afy. Methodology 2, however, does not account for the use of best available technology and water savings required by recently adopted water conservation laws and regulations. Therefore, Dexter Wilson also considered Methodology 3, which is based on the use of best available technology and water savings required by water conservation laws and regulations.

Methodology 3 accounts for indoor and outdoor water usage, as well as stadium water demand, and forecasts the proposed project's water demand, with conservation, at 693,343 gpd or 776 afy. According to Dexter Wilson, Methodology 3 is "likely to be the most accurate projection" of the three methodologies described in its technical memorandum. For that reason, the proposed project's estimated water demand is 693,343 gpd or 776 afy.

Table 4.17-2. Projected Potable Water Demand

Project Campus Component	Quantity	Demand Factor (gallons per day per unit)	Average Water Demand (gallons per day)
Campus Residential (Multi-Family)	8,510 people	40 gpd/person	340,400
Campus Retail	95,000 SF	15.3 gpd/SF/year	3,982
Academic	1,565,808 SF	27.1 gpd/SF/year	116,256
Campus Hotel	400 rooms	115.8 gpd/room	46,320
Stadium	35,000 seats	51,000 gpd	51,000
Park	38.2 gross-acres	2,803 gpd/gross-acre	107,075
Other Landscaping	10.1 gross-acres	2,803 gpd/gross-acre	28,310
		Total	**693,343***

Source: Appendix 4.17-5.
* The proposed project's water demand, using acre feet, is a total of 776 afy.

Because the proposed project's potable water demand would be minimal as compared to the Alvarado Treatment Plant capacity, impacts would be **less than significant**.

Capacity of Water-Serving Infrastructure

Water service to the project site will be provided from the City of San Diego University Heights 390 Pressure Zone. Elevations within the site will range from 55 feet to 86 feet, which results in a maximum static pressure range of 131 pounds per square inch (psi) to 145 psi. This pressure range is above the City of San Diego desirable pressure criterion. Individual pressure regulators will need to be installed for services on all buildings in order to comply with the California Plumbing Code, which limits building supply pressures to a maximum of 80 psi. Water service to the project site will be provided from the City of San Diego 390 Pressure Zone public water system through several master water meters. The number and location of the master water meters for the project site is based on the ability of the City public water system to supply the needed water demand within the established City design criteria.

The proposed private on-site water system for the proposed project will be a combined private water system, meaning domestic water service and fire protection service will be provided by the same system. The private water system will have four separate connections to the existing public water system. In addition, the four proposed service connections to the public water system will be located to make use of the existing On-site PRS.

The existing on-site PRS is composed of one 2-inch-diameter pressure reducing valve and two 10-inch-diameter pressure reducing valves. The Friars Road PRS is composed of one 4-inch-diameter pressure reducing valve and two 10-inch-diameter pressure reducing valves. These pressure reducing stations will be the primary sources of water service to the project site. Each pressure reducing station has two 10-inch-diameter pressure regulating valves; this configuration ensures redundancy within each pressure reducing station even with one large valve out of service. The maximum continuous flowrate for a 10-inch-diameter pressure reducing valve is 4,900 gallons per minute. Having two similarly sized pressure reducing stations in the near vicinity of the project site provides supply redundancy as well. If an entire pressure reducing station was to be out of service, the second station can provide sufficient flow. This will also apply to pipeline breaks, which could isolate one pressure reducing station from the other.

The on-site PRS would provide the same hydraulic grade line as the Friars Road PRS. Per the City of San Diego Water Department's Water Field Book Map, the Friars Road PRS is set to provide a downstream pressure of 125 psi at an elevation of 100.8 feet, which results in a hydraulic grade line of 389 feet.

There is an existing 48-inch-diameter 536 Pressure Zone transmission pipeline that enters the project site on the southeast end and exits the property in the north-central to northwest end. A section of this existing 48-inch transmission pipeline will be relocated due to conflicts with proposed improvements within the proposed project development. The relocation will shift the 48-inch pipeline toward the east property boundary and extend the pipeline north to Friars Road, then west in Friars Road until it connects back to the existing pipeline. The relocation of the pipeline would not conflict with the existing fuel pipeline located on the east property boundary.

The 48-inch transmission pipeline relocation will commence north of the existing on-site PRS. Therefore, the existing on-site PRS will remain in place. To the extent feasible, the existing 16-inch-diameter 390 Zone pipeline on the east side of the project site will remain in place. There are sections of this pipeline that will need to be relocated in order to accommodate improvements within the project site (Appendix 4.17-1). Please see Figure 2-10B, in Chapter 2, Project Description, for a conceptual water plan.

As discussed in Appendix 4.17-1, the public water system adjacent to the project site has adequate capacity to provide service to the proposed project. Four new water service connections are proposed as part of the project to be made to the existing 390 Zone public water system to provide service to the project site. Relocation of the 48-inch-diameter 536 Pressure Zone transmission pipeline would be required to accommodate the proposed project.

SDSU would coordinate with the City and would be responsible to construct and pay for these improvements. Impacts associated with the relocation of the 48-inch-diameter 536 Pressure Zone transmission pipeline, and segments of the 16-inch-diameter 390 Zone pipeline, have been analyzed herein. Therefore, impacts would be **less than significant**.

Sewer Infrastructure Connections

The proposed project would be served by existing sewer infrastructure located in area roadways surrounding the project site. However, connections to the nearest available facility through new service laterals would be required to provide sewer collection to the proposed project.

The sanitary sewer system will be an "engineered sewer system," and the design criteria used for this study is the City of San Diego Sewer Design Manual, dated May 2015, and the City of San Diego Regional Standard Drawings for on-site sewer mains. The sewer mains are proposed to be private. The sewer mains will vary in size from 8 inches to 18 inches, are to be PVC, and with manhole spacing following the design guidelines in the Sewer Design Manual. The proposed project includes three sewer systems; (1) System 100 (west), (2) System 200 (central), and (3) System 300 (east), which ultimately connect to the existing 84-inch/96-inch Mission Valley Trunk sewer, which is located at the south end of the project site. Systems 100 and 300 propose new connections to the existing 84-inch/96-inch trunk sewer, which will mimic the current existing 18-inch sewer connection south of Node 218. Because the proposed project's sewer system will be private, a Memo of Understanding will be required between the City and SDSU (Appendix 4.17-2). Please see Figure 2-10C, in Chapter 2, Project Description, for a conceptual sewer plan. Therefore, because no off-site sewer improvements are required, wastewater infrastructure improvements would be confined on site, and impacts would be **less than significant**.

Stormwater

The proposed project would require on-site and off-site drainage improvements. With implementation of on-site improvements, the total post-project flow is significantly lower than the total pre-project flow, resulting in a net decrease in peak flow rates and volume of runoff, which can be attributed to the reduction of impervious area via the planned River Park and biofiltration BMPs (Appendix 4.17-3).

There are currently six major outfalls from the project site: four that discharge south into the San Diego River and two that discharge east into the Murphy Canyon Channel. To minimize environmental disturbances, the proposed project is designed so as to maintain the existing outfall structures in the post-project condition. The improvements associated with Street 'A', portions of Mission Village Drive/Street 'F', and portions of Street 'I' will comingle with on-site improvements and discharge south to the San Diego River. The improvements associated with Friars Road, San Diego Mission Road, and portions of Street 'I' will be conveyed by separate, existing storm drain systems to the two Murphy Canyon Channel outfalls. Street 'A' is proposed to connect the existing Fenton Parkway across the light rail track and into the site where there is currently a vegetated athletic field. Street 'A' may be considered as an "extension" of an existing road.

The proposed Street 'A' consists of a standard crowned[6] section with one through lane and on-street parking in both the eastbound and westbound directions. The northern portion of the road will be captured by the on-site storm drain system and conveyed into an on-site water quality basin, while the southern portion of the proposed road will be conveyed via a separate biofiltration swale and storm drain infrastructure within the adjacent river park.

[6] The crown refers to the slope of the roadway from a cross section. A standard crown means the roadway is of a standard slope.

East of the proposed Stadium Way, Friars Road transitions from standard crowned to super-elevated to the south. Friars Road then becomes super-elevated to the north approximately 1,000 feet west of the Mission Village Drive overpass. Intermittent slot drains and grate inlets serve to collect flows along the median along the super-elevated portions of Friars Road. From the low point below the Mission Village Drive overpass and eastward to Interstate (I) 15, the roadway generally returns to a standard crowned section. It is understood at this time that Friars Road will not be significantly re-graded beyond the proposed widening to the south. West of Stadium Way, Friars Road is proposed to be widened to the south for the addition of two right-turn lanes onto Stadium Way from eastbound Friars Road. Immediately east of Stadium Way, Friars Road is proposed to be widened to add two left-turn lanes in the westbound direction, while realigning the three eastbound through lanes. The striped median with K-rail will be realigned south and in association with these proposed improvements. The four ramps connecting Friars Road with Mission Village Drive will also be widened. The drainage pattern of Friars Road is understood to be generally consistent between the existing and proposed conditions. Approximately six inlets are anticipated to be reconstructed as a result of the proposed improvements, and approximately seven additional inlets may require improvements to increase their capacity to accommodate other proposed developments in the contributing drainage area.

The existing condition of Mission Village Drive consists of two through lanes in both the northbound and southbound directions, and single lanes onto the Friars Road ramps, north and south of the overpass over Friars Road. The through lanes will be maintained in the proposed condition. The road and overpass are proposed to be widened to add bike lanes in the north and southbound directions and to incorporate dual turn lanes onto the widened eastbound and westbound Friars Road on-ramps. One existing inlet is anticipated to be reconstructed as a result of the proposed improvements. No additional inlets are proposed to be impacted or reconstructed by these project improvements. The majority of runoff from the southbound lanes of Mission Village Drive flow directly into the on-site project area, while the majority of runoff from the northbound lanes is conveyed by San Diego Mission Road.

In the existing condition San Diego Mission Road generally consists of two through lanes in both the eastbound and westbound directions. An existing private driveway to the Mission Valley Terminal (MVT) fuel facility is connected to this road, and San Diego Mission Road continues eastward, crossing Murphy Canyon Creek and I-15 via an overpass. In the proposed condition, the two westbound lanes between Mission Village Drive and the MVT facility are understood to be protected in place and converted to an extended private driveway for MVT. The two eastbound lanes in this segment will be removed and incorporated into the on-site improvements. Beginning at MVT, a portion of San Diego Mission Road will be realigned to connect south to the proposed on-site roads via a traffic circle. The remaining portion to the east of MVT will generally be protected in place. Two inlets are anticipated to be reconstructed as a result of the proposed improvements, and a new inlet is understood to be proposed to capture and convey flow from the proposed MVT driveway.

Murphy Creek Road is proposed where there is currently a perimeter access road and existing parking. The access road connects to Rancho Mission Road at the southeast corner of the site via an overpass over the Murphy Canyon Channel and an underpass beneath I-15. An existing earthen berm along the eastern perimeter of the site, serving as a bank of the Murphy Canyon Channel, would not be impacted by the proposed improvements. The existing southeast section of Murphy Creek Road is super-elevated to the east and also protected in place. The proposed section of Murphy Creek Road along the eastern perimeter of the site is super-elevated to the west. The proposed road section will consist of one through lane in both directions and on-street parking along the southbound lane. Two inlets are proposed along the western super-elevated portion of Murphy Creek Road, and the existing inlet on the southern portion of Murphy Creek Road would be maintained (Appendix 4.17-4).

Proposed inlets will be sized for the 100-year 6-hour storm event. During final engineering, inlets will be designed to intercept all flows and not to allow inlet bypass to downstream drainage areas. Inlets will be sized per the City of San Diego Drainage Design Manual, dated January 2017. Please see Figure 2-10D in Chapter 2, Project Description, for a conceptual stormwater plan. SDSU would coordinate with the City and would construct and would pay for these improvements as part of the proposed project. Therefore, impacts would be **less than significant**.

Because natural gas, electricity, and telecommunication infrastructure improvements would be maintained and improved on site, impacts would be **less than significant** for these utilities.

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

Construction

A short-term demand for water will occur during project construction, primarily in association with dust control, grading, utilities installation and testing, concrete mixing, cleaning of equipment, and other related construction activities. These activities would occur incrementally through project build-out and be temporary in nature. The amount of water used during construction would vary depending on the conditions of the soil, weather, size of the area being worked, and site-specific operations, but is not expected to be substantial. The City of San Diego will provide water through a construction-metered connection from existing public water mains adjacent to the project site, and water tankers will deliver water for dust control to the development areas throughout project construction as needed. Therefore, an adequate supply of water will be available during project construction, and potential construction-related water supply impacts will be **less than significant**. (See Appendix 4.17-5, Water Use Estimation for the SDSU Mission Valley Campus Master Plan Project.)

Operation

According to the City of San Diego's Long-Range Water Resources Plan, SANDAG has projected that the City's service area population will increase to 1.69 million residents by the year 2035, which is a 20% increase from 2012 (City of San Diego 2012). SANDAG also calculated that the applicable water demand in 2035 would be 302,700 afy under normal weather conditions (City of San Diego 2012). SANDAG's 2035 water-demand projection assumes that the City would maintain an aggressive water conservation program throughout the forcasted timetable. Under dry weather conditions, 2035 water demand is projected to be 281,800 afy (a total reduction of almost 21,000 afy) (City of San Diego 2012). As shown in Table 4.17-2, Projected Daily Water Demand, at buildout, the proposed project would result in a water demand of approximately 693,343 gallons per day, or approximately 776 afy, which represents approximately 0.24% of the total regional demand.

Urban Water Management Plans (UWMPs) of the relevant water agencies are foundational documents to assess whether sufficient water supplies are, or will be, available to meet the projected water demands of a project, in addition to existing and planned future water demands within the water agency's sersvice area. The current UWMPs (2015) prepared by the City of San Diego and SDCWA both conclude that adequate water supplies exist for future planned development within the San Diego region through 2035 (City of San Diego 2016a; SDCWA 2016).

In addition, in November 2018, the City of San Diego PUD prepared a WSA for the Mission Valley Community Plan Update. The Mission Valley Community Plan Update is a comprehensive update of the Mission Valley Community Plan that guides development of the entire Mission Valley community. The WSA evaluates water supplies that are or will be available during normal, single-dry year, and multiple-dry water years during a 20-year projection to meet

the projected demands of the Mission Valley Community Plan Update, in addition to existing and planned future water demands of the PUD. The WSA identifies current and future water supplies, as well as actions necessary to develop the future water supplies. The WSA assesses whether sufficient water supplies are, or will be, available to meet projected water demands. The WSA concludes that the water demand projections for the Mission Valley Community Plan Update are included in the regional water resource planning documents of the City, Water Authority and the Metropolitan Water District of Southern California. The WSA demonstrates that there will be sufficient water supplies available during normal, single-dry, and multiple-dry water years over a 20-year projection to meet the projected demands of the Mission Valley Community Plan Update, in addition to the existing and other planned development projects within the PUD service area.

The SDSU Campus Master Plan project is located on the existing SDCCU Stadium site, which is within the Mission Valley Community Plan Update planning area. The Mission Valley Community Plan Update assumed that 4,800 dwelling units, two million square feet of office space, 300,000 square feet of retail space, 450 hotel rooms, 38.1 acres of active park, 4.9 acres of open space, and a 40,000-seat stadium would be developed on the SDCCU Stadium site. The proposed project is within the Mission Valley Community Plan Update's land use assumptions of the SDCCU Stadium site. Because the proposed project is included within the buildout projections of the Mission Valley Community Plan Update, as demonstrated by the Mission Valley Community Plan Update WSA, the proposed project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.

Notwithstanding the above analysis, the City's WSA also states that projected water demand was based on SANDAG's Series 13 forecasts through 2040 for dwelling units and employees in the community planning area. This suggests that the proposed project's water demand was not included in the WSA, despite the land use assumptions cited in the Mission Valley Community Plan Update (i.e., 4,800 dwelling units, two million square feet of office space, 300,000 square feet of retail space, 450 hotel rooms, 38.1 acres of active park, 4.9 acres of open space, and a 35,000-capacity stadium).

The Mission Valley Community Plan Update nonetheless provides useful information regarding water supplies available to serve project demand, in addition to existing and other planned water demands within the PUD service area during normal/average, dry, and multiple-dry years. If the proposed project's water demand was not included, it can be added to the amounts shown in the Mission Valley Community Plan Update WSA without change in the fundamental conclusions of adequate water supplies to meet water demands for the project in addition to reasonably foreseeable existing and future development during variable water years.

Furthermore, MWD, SDCWA, and the City are required by California law to update their UWMPs every 5 years. Accordingly, MWD, SDCWA, and the City updated their UWMPs in 2015 (and approved them in 2016) to reflect new development and assess any ongoing water supply issues.

The next required UWMP update is in 2020 (with anticipated approval action in mid-2021). As of this writing, the water agencies (MWD and SDCWA) and the City have likely already commenced the update process for their required 2020 UWMPs. Because of the regulatory requirement to update UWMPs, SDCWA and the City will need to update water demands, including the water demands within the Mission Valley Community Plan area, which encompasses the project site.

Because the CSU Board of Trustees will likely consider approval of the proposed project in the first quarter of 2020, if the proposed project is approved, the project's water demand can and should be included in the forecasted water demands of the City and the SDCWA in their upcoming 2020 UWMPs. Moreover, by that time, the project site is

only anticipated to be in the grading phase, with no actual development of housing or other operational, permanent water-related land uses until approximately August 2022 and thereafter.

Additionaly, CSU policy on energy conservation and utilties management requires that all CSU campuses take every necessary step to conserve water resources, including installing controls to optimize irrigation water, reducing water usage in restrooms and showers, and cooperating with state, city, and county governments to the greatest extent possible to effect additional water conservation.

Consistent with CSU policy, SDSU has installed low-flow toilets, flush valve controls, electronic faucets, and low-flow showerheads in all or most of its lavatory facilities. SDSU also has required the installation of energy and water conserving fixtures in all new construction on campus. To conserve water used in landscape irrigation, SDSU utilizes irrigation controllers that are linked to weather service evapotranspiration data to deliver the irrigation water only when needed. Consistent with CSU policy, SDSU will continue to implement conservation measures to reduce the use of water and decrease wastewater flows. Further, CSU/SDSU will be required to comply with the state's water savings laws and regulations for indoor and outdoor water usage to enhance water conservation.

SDSU is also committed to obtaining Leadership in Environmental and Energy Design (LEED) Version 4 at a Silver or better certification level for the proposed project, as well as a Neighborhood Development designation for sitewide design. To obtain a LEED rating, a project is assessed and given points on the basis of environmentally responsible features incorporated into the project design. A project checklist identifying applicable project features and applicable point worth has been established for the LEED for Home Ratings System. Due to multiple stories of construction, the proposed project would be subject to the LEED BD+C New Construction (applicable to multiple-residential units within one building with more than eight stories) (USGBC 2014).

In order to obtain points towards a LEED Version 4 Silver rating, the proposed project can implement a variety of water-efficiency features into the project design. As identified in the LEED for Homes Rating System, water-efficiency elements include features associated with water reuse, irrigation systems, and indoor water use. Applicable water-reuse features may include installation of a rainwater harvesting system or a graywater reuse system. With regard to irrigation systems, LEED points can be obtained by installation of a high-efficiency irrigation system featuring elements such as drip-irrigation, timer-controlled watering devices, and the use high-efficiency spray nozzles. In addition, a project may obtain LEED points by reducing overall irrigation demand by at least 45%, which usually is achieved by the use of native, drought-tolerant landscaping. Lastly, a project may obtain LEED points by installation of very high or high-efficiency (low-flow) fixtures and fittings to lavatory faucets, showers, and toilets. Indoor water use points also can be obtained through the installation of efficient water distibution systems and appliances. The commitment to obtaining a LEED Silver rating ensures that the proposed project would be designed, constructed, and operated to maximize water efficiency.

The proposed project would have sufficient water supplies available to serve the project from existing entitlements and resources, and impacts would be **less than significant**. However, if the project's water demand was not included in the City's 2015 UWMP and the Mission Valley Community Plan WSA, then for planning purposes, the proposed project would result in **significant impacts** until the project's water demands are incorporated into the required updated 2020 UWMPs of the SDCWA and the City (**Impact UTL-1**).

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?

Construction

Construction of the proposed project is not anticipated to generate significant amounts of wastewater. Therefore, impacts would be **less than significant**.

Operation

Wastewater generated by the proposed project would be conveyed through the City of San Diego Metropolitan Wastewater Department's collection system and eventually treated at the Point Loma WWTP. As stated previously, the Point Loma WWTP currently treats approximately 150 mgd (5-year average) of wastewater and has capacity to treat up to 240 mgd (City of San Diego 2015). Therefore, the Point Loma WWTP has an excess capacity of 85 million gallons.

Using the anticapted water demand as shown in Table 4.17-2, the proposed project could generate 0.7 mgd of wastewater, representing 0.5% of the wastewater currently treated at the Point Loma WWTP. However, this is an overestimate considering that water would be required for irrigation. Thus, the proposed project would not significantly impact the Point Loma WWTP's ability to serve the proposed project's demand in addition to its existing commitments.

Therefore, the proposed project would not result in a determination by the wastewater treatment provider that serves or may serve the proposed project that it does not have adequate capacity to serve the proposed project demand in addition to the provider's existing commitments. Therefore, impacts would be **less than significant**.

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?

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

Construction

Demolition of existing buildings, excavation, and other related construction activities associated with the proposed project would generate construction waste. According to the Draft Environmental Impact Report for the Stadium Reconstruction Project prepared by the City, it is estimated that demolition of the Stadium and utility infrastructure would generate approximately 430,000 tons of construction waste (City of San Diego 2015). The volume/quantity of waste from the demolition of Candlestick Park (old San Francisco 49ers stadium) was used for guidance as it is a recent similar effort involving the demolition and new construction of a similarly sized professional football stadium. Disposal ratios were based on City waste management guidelines. This would result in a **potentially significant impact (Impact UTL-2)**.

To ensure that to the extent feasible, the proposed project would recycle, salvage, and reuse materials and then divert materials to the landfill, MM-UTL-1 would be required.

Operation

The proposed project's solid waste disposal needs would be served by Allied Waste Services Inc. Allied Waste would transport solid waste to a nearby waste disposal facility, possibly the Miramar Landfill or Sycamore Canyon Landfill. The Miramar Landfill is nearing capacity; however, the City's Zero Waste Plan will likely extend the useful life of the landfill to 2030. When the Miramar Landfill closes, Allied Waste would be responsible for disposing the solid waste generated by the proposed project at a landfill in the region with sufficient permitted capacity. As of 2016, the Sycamore Canyon Landfill (located in Santee) had a remaining capacity of approximately 148 million cy, with a closure year of 2042 (CalRecycle 2019a).

Current estimates of remaining permitted capacity, described above, would suggest sufficient permitted capacity exists to serve the proposed project's solid waste generation of 2,342 annual tons (shown in Appendix 4.7-1). In support of this available capacity, the current County Five-Year Report (Countywide Integrated Waste Management Plan) states that existing landfills have enough daily permitted disposal capacity for the next 17 years and would therefore meet state requirements that the County maintain 15 years of disposal capacity (County of San Diego 2012). The projected waste disposal needs of the region were developed using General Plan growth data obtained from jurisdictions throughout the County.

The County's Siting Element (California Integrated Waste Management Plan) discusses several strategies for increasing or extending regional landfill capacity, including (1) continuation of diversion programs for recyclable materials, (2) improvement of landfill technology and space management, (3) construction of enhanced recycling facilities, (4) export of waste out of the County, and (5) increase of maximum daily permitted throughput rates at County landfills (County of San Diego 2005). In addition to the recommendations included in the County Siting Element, the County and all jurisdictions in the County, and state agencies (including SDSU) are expected to implement and maintain waste diversion programs to prolong the operation of County landfill facilities.

The proposed project is projected to generate a net increase of 2,342 annual tons of solid waste over the existing Stadium uses located on the project site. Because the regional solid waste disposal landfills currently available are expected to have sufficient permitted capacity to serve the proposed project's solid waste generation through buildout, this increase in solid waste generation would be less than signficant. Therefore, the proposed project would be served by landfill(s) with sufficient permitted capacity to accommodate its solid waste disposal needs and would result in a **less than signficant impact**.

SDSU typically diverts over 50% of their yearly on-campus generated solid waste to a licensed recycling facility. Solid waste generated from operation of the proposed project would be subject to the existing on-campus solid waste diversion program, which historically has been successful at diverting at least 50% of on-campus generated solid waste from a landfill to an appropriate recycling facility. Maintaining the existing diversion rate would ensure compliance with AB 75, which requires all large state facilities to divert at least 50% of solid waste from landfills.

The proposed project would include recycling bins in the housing and campus innovation buildings. Recyclable materials would be transported to a certified recycling facility by a certified recyclable materials collector at least once per week. Therefore, the proposed project would not impede the City's ability to implement efforts to promote and enforce recycling. Because the proposed project would comply with federal, state, and local statutes and regulations related to solid waste, impacts would be **less than significant**.

Would the project result in a cumulative impact to utilities and service systems?

Construction

Construction and demolition of the proposed project could generate significant amounts of solid waste (**Impact UTL-2**). However, MM-UTL-1 would be required, which would ensure that all waste be reused and recycled to the extent possible. With implementation of MM-UTL-1, impacts would be **less than significant**.

Operation

The proposed project would result in an incremental increase in demand for utilities and would require infrastructure improvements. Sewer improvements would be confined on site; however, off-site potable water and stormwater improvements would be required. SDSU would coordinate with the City and would be responsible to construct and pay for these improvements. Impacts associated with the relocation of the 48-inch-diameter 536 Pressure Zone transmission pipeline have been analyzed herein. Therefore, impacts would be **less than significant**.

4.17.5 Summary of Impacts Prior to Mitigation

Impact UTL-1 For planning purposes, the proposed project's water demand should be included in the required 2020 urban water management plan updates of the City of San Diego and the San Diego County Water Authority. With inclusion of the project's water demand into such plans, and based on the supply and demand information in the Mission Valley Community Plan Water Supply Assessment, the available water supplies will be sufficient during normal, single-dry, and multiple-dry water years over a 20-year projection to meet the projected demands of the Mission Valley Community Plan Update (including the project site), in addition to the existing and other planned development within the City's Public Utilities Department service area.

Impact UTL-2 The proposed project would result in the generation of significant amounts of construction waste, which could result in significant impacts.

4.17.6 Mitigation Measures

The following mitigation measures are proposed to minimize the identified potential impacts to utilities and service systems. With the implementation of mitigation, all potential impacts would be reduced to less than significant.

MM-UTL-1 At or prior to project approval, the San Diego County Water Authority and the City of San Diego can and should include the proposed project's water demand in their required 2020 urban water management plan updates.

MM-UTL-2 During construction of the proposed project, California State University (CSU)/San Diego State University (SDSU), or its designee, shall reuse all demolition waste to the extent feasible. CSU/SDSU, or its designee, shall dispose of all recyclable demolition waste products at a construction waste recycling facility. Following occupancy of the proposed project, CSU/SDSU, or its designee, shall maintain an active recycling program to reduce solid waste generated by the proposed project.

4.17.7 Level of Significance After Mitigation

The proposed project would result in a demand for utilities and would require infrastructure improvements. Sewer improvements would be confined on site; however, off-site potable water and stormwater improvements would be required. SDSU would coordinate with the City accordingly. SDSU would be responsible for construction and would pay for these improvements. Therefore, impacts would be **less than significant**.

For planning purposes, the proposed project's water demand should be included in the required 2020 UWMP updates of the City and the SDCWA. However, **MM-UTL-1** provides the existing regulatory compliance obligations of the SDCWA and the City. With implementation of **MM-UTL-1**, impacts would be **less than significant**.

Construction and demolition of the proposed project could generate significant amounts of solid waste. However, **MM-UTL-2** would be required, which would ensure that all waste be reused and recycled to the extent possible. With implementation of **MM-UTL-2**, impacts would be **less than significant**.

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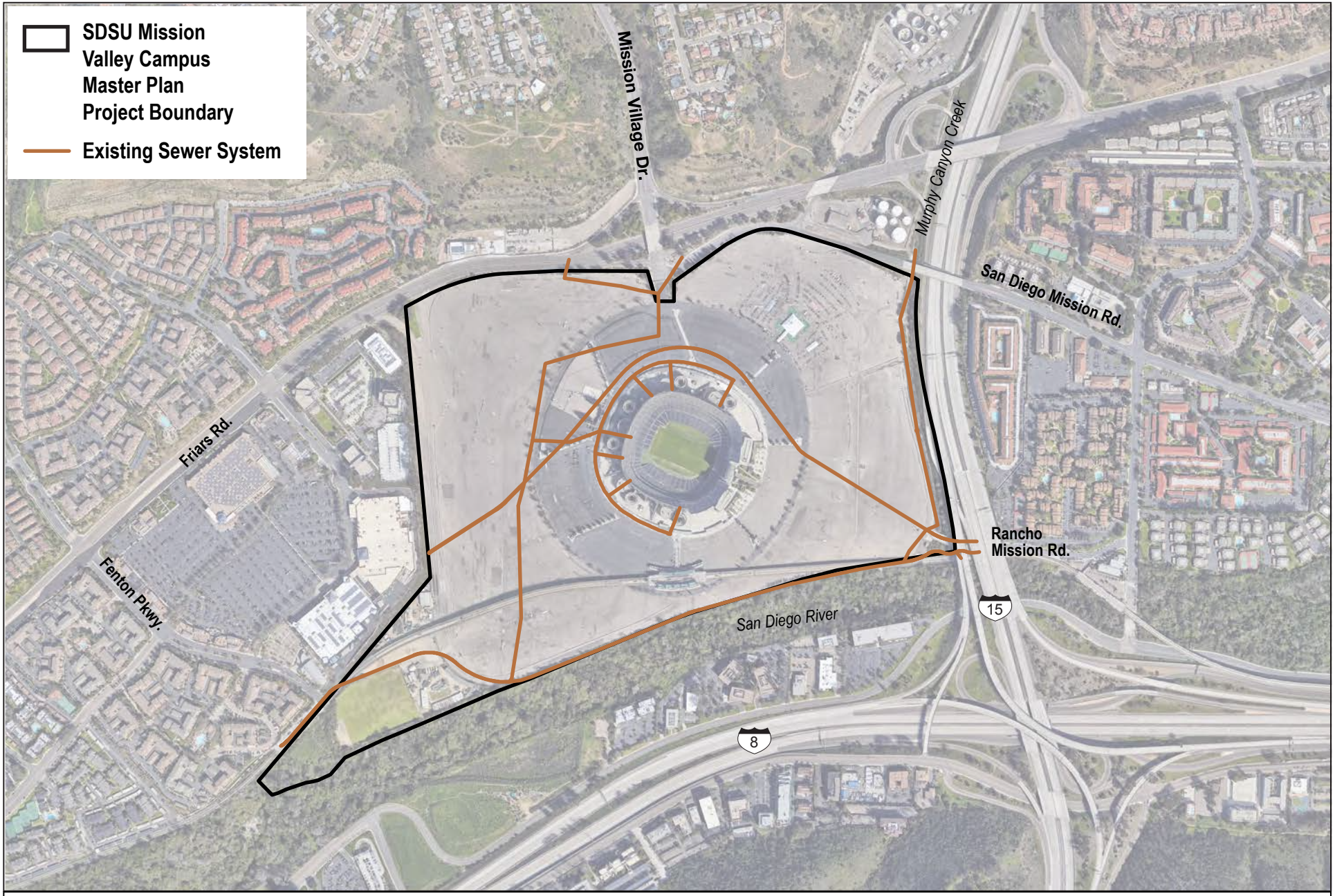

SOURCES: AERIAL-BING 2017; UTILITIES-RICK ENGINEERING 2019

SDSU Mission Valley Campus Master Plan EIR

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Figure 4.17-1
Existing Sewer System

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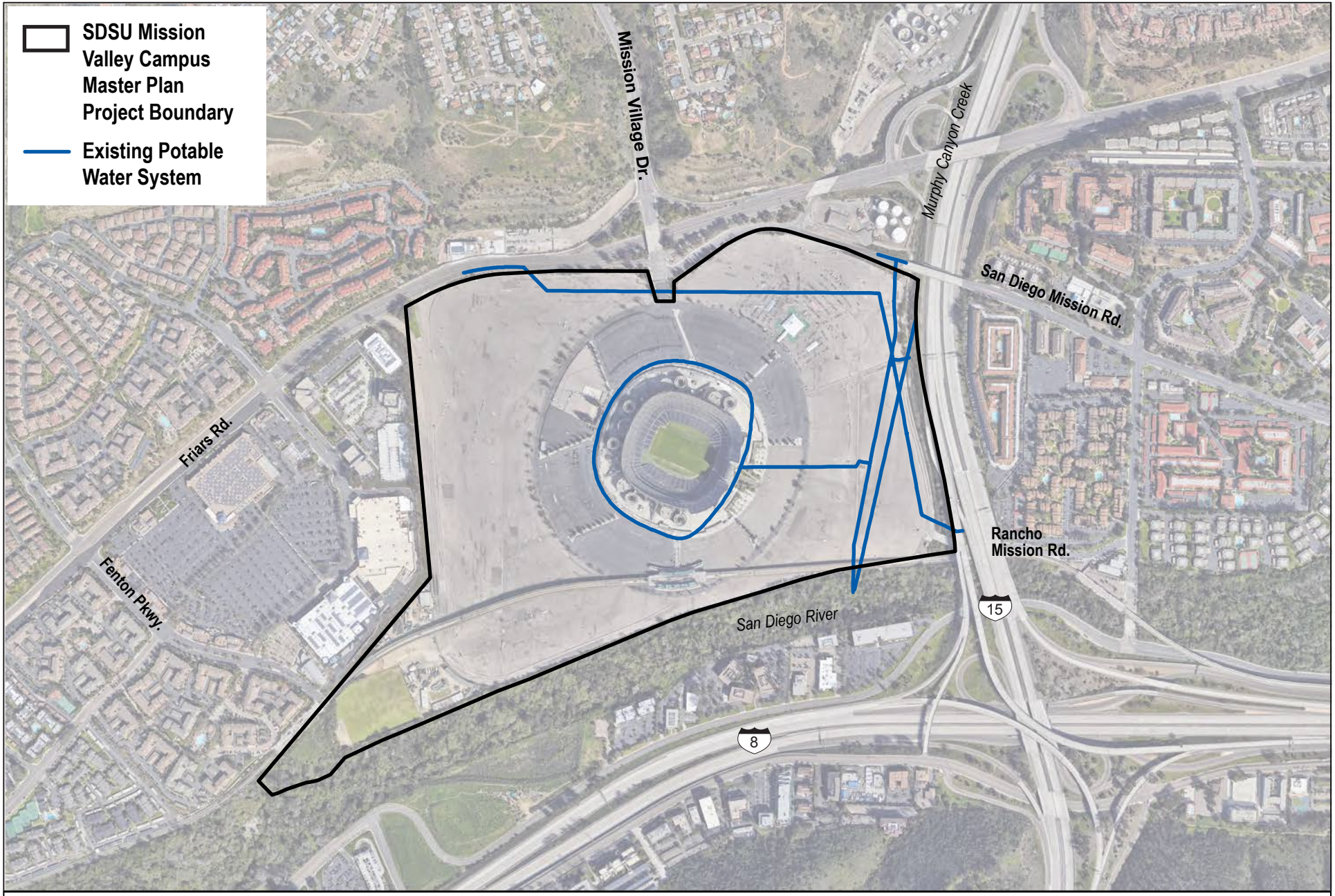

SOURCES: AERIAL-BING 2017; UTILITIES-RICK ENGINEERING 2019

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Figure 4.17-2
Existing Potable Water System

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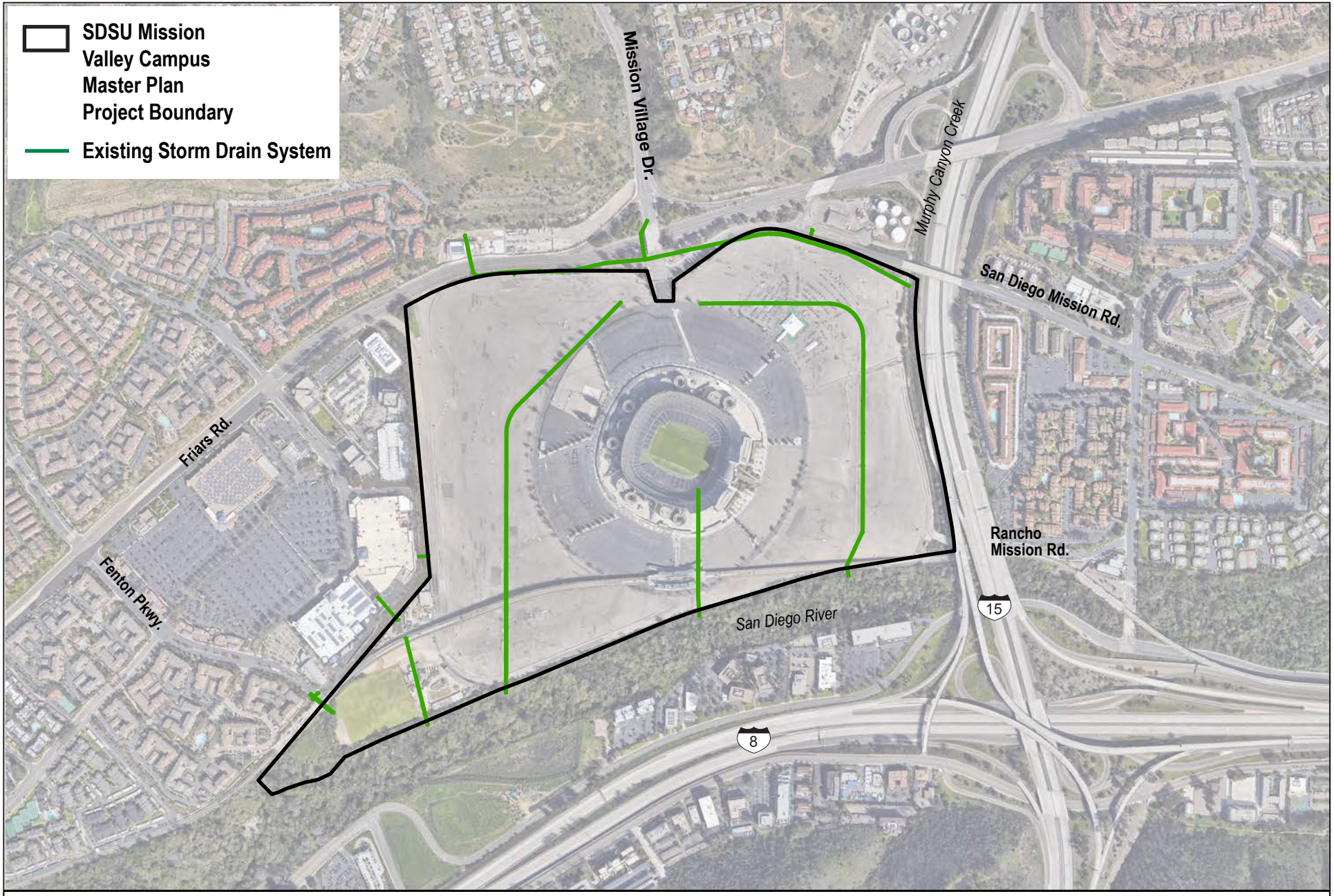

SOURCES: AERIAL-BING 2017; UTILITIES-RICK ENGINEERING 2019

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Figure 4.17-3
Existing Storm Drain System

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