4.16 Utilities and Service Systems

4.16.1 Introduction

This section evaluates the potential for the proposed project, which includes the Housing Element Update (HEU), the Stanford Community Plan (SCP) update, and related rezonings (collectively, the "project") to result in substantial adverse effects related to utilities and service systems. Below, the Environmental Setting portion of this section includes descriptions of existing conditions relevant to utilities and service systems. Further below, existing plans and policies relevant to utilities and service systems associated with implementation of the project are provided in the Regulatory Setting section. Finally, the impact discussion evaluates potential impacts to utilities and service systems that could result from implementation of the project in the context of existing conditions.

Notice of Preparation Comments

A Notice of Preparation (NOP) for the Draft EIR was circulated on August 8, 2022, and a scoping meeting was held on August 23, 2022. A revised NOP reflecting changes to the HEU's list of opportunity sites was circulated on March 21, 2023. Both NOPs circulated for a period of 30 days, and the NOPs and the comments received during their respective comment periods can be found in **Appendix A** of this EIR.

Comments relevant to utilities and service systems stated that it would be difficult to provide urban services in rural area (i.e., water, sewer, stormwater, etc.). Specifically, a request was received to analyze whether enough water and sewer capacity would be available to serve housing opportunity sites located outside the City of Morgan Hills's Urban Service Area. It should be noted, however, that the second NOP and the revised list of HEU housing opportunity sites do not include any sites in Morgan Hill or Gilroy or any sites that are not within an existing urban services area, so the issue will not be discussed further.

Next, a comment was received requesting that the EIR analyze the environmental impacts associated with the development of new water and sewer lines. Finally, a comment was received stating that the HEU requires the preparation of a Water Supply Assessment. Both of these issues are assessed later in this section.

Information Sources

The primary sources of information referenced in this section included those listed below. Please note that a full list of references for this topic can be found at the end of this section.

- Santa Clara County General Plan (1994).
- Stanford University Community Plan (2000).
- Palo Alto Comprehensive Plan Update Environmental Impact Report (2017).
- Envision San José 2040 General Plan Environmental Impact Report (2011).

- Water Supply Assessment, County of Santa Clara 6th Cycle Housing Element Update. San José Water (2023). See **Appendix C** of this EIR.
- Santa Clara County Housing Element Update Water Supply Assessment – Stanford University. West Yost (2023). See **Appendix C** of this EIR.

4.16.2 Environmental Setting

Water

Water service to the housing opportunity sites in the unincorporated areas of San José would be provided by the San José Water Company (SJWC), which obtains its supply from imported water supplies, local surface water supplies, groundwater, and recycled water. Water service on the Stanford campus is provided independently by the University, which obtains its supply from imported water supplies, local surface water supplies, and groundwater.

A Water Supply Assessment (WSA) was prepared for each of the water providers that would serve the project. The San José Water Company (SJWC) prepared its own WSA for those project sites to which it would provide water service in the City of San José. A separate WSA was prepared by West Yost for project components on the Stanford campus. Finally, West Yost prepared a summary WSA for both the San José project sites and the Stanford project components, and that summary document forms the basis for the analysis in this EIR. All three documents are attached to this EIR as **Appendix C**.

Water Supply Availability

San José Water Company

SJWC obtains its water supplies from several sources, including purchased surface water, groundwater from the Santa Clara Subbasin, local surface water, and recycled water. Additional detail on these sources is provided below.

Purchased Surface Water

On average, purchased water from Valley Water makes up over half of SJWC's total water supply. This water originates from several sources including Valley Water's local reservoirs, the State Water Project and the federally funded Central Valley Project San Felipe Division. Water is piped into SJWC's system at various turnouts after it is treated at one of three Valley Water-operated water treatment plants. In 1981, SJWC entered into a 70-year master contract with Valley Water for the purchase of treated water. The contract provides for rolling three-year delivery schedules establishing fixed quantities of treated water to be delivered during each period. SJWC and Valley Water currently have a three-year treated water contract for fiscal years 2020/2021 – 2022/2023, with contract supplies of 70,723 acre-feet (AF) in 2020/2021, 70,723 AF in 2021/2022, and 71,858 AF in 2022/2023. The actual amount of water delivered depends on considerations including hydrologic variability, interruptions in Valley Water facility operations, and water quality.

Groundwater

On average, groundwater accounts for 30 to 40 percent of SJWC's total water supply. SJWC draws water from the Santa Clara Subbasin, which is part of the larger Santa Clara Valley Basin. The Santa Clara Subbasin consists of unconsolidated alluvial sediments and covers a surface area of 297 square miles in the northern part of Santa Clara County. The subbasin is not adjudicated. Valley Water is responsible for maintaining the subbasin and ensuring the subbasin does not become overdrafted. Aquifers in the subbasin are recharged naturally by rainfall and streams and artificially mainly by recharge ponds operated by Valley Water. Due to different land use and management characteristics, Valley Water further delineates the Santa Clara Subbasin into two groundwater management areas: the Santa Clara Plain and Coyote Valley. SJWC draws groundwater from the Santa Clara Plain portion, which covers a surface area of 280 square miles and has an operational storage capacity estimated to be 350,000 AF.

Local Surface Water

SJWC has "pre-1914 water rights" to surface water in Saratoga Creek, Los Gatos Creek, and associated watersheds, totaling approximately 72 million gallons per day, based on capacity of diversion works from Initial Statements of Water Diversion and Use. SJWC also filed for licenses in 1947 and was granted license number 4247 in 1956 by the State Water Resources Control Board (SWRCB) to draw 1419 AF/year (462 MG/year) from Saratoga Creek, and license number 10933 in 1979 to draw 6,240 AF/year (2,033 MG/year) from Los Gatos Creek.

Recycled Water

South Bay Water Recycling (SBWR) has been serving Silicon Valley communities since 1993 with a sustainable, high-quality recycled water supply. SBWR was created to reduce the environmental impact of freshwater effluent discharge into the salt marshes located at the south end of the San Francisco Bay, and to help protect the California clapper rail and the salt marsh harvest mouse.

In 1997, SJWC entered into a Wholesaler-Retailer Agreement with the City of San José to provide recycled water to SJWC's existing and new customers nearby SBWR recycled water distribution facilities, whereas the City of San José is the wholesaler and SJW is the retailer. At the time, the involvement of SJWC was largely to assist the City in meeting its wastewater regulatory obligations. In accordance with the terms of this agreement, SJWC allowed SBWR to construct recycled water pipelines in its service area, SJWC would only own the recycled water meters, while SBWR would own, operate, and maintain the recycled water distribution system.

In 2010, this Wholesaler-Retailer Agreement was amended to allow SJWC to construct recycled water infrastructure that would be owned, operated, and maintained by SJWC. Then in 2012, this Wholesaler- Retailer Agreement was again amended to allow SJWC to construct additional recycled water infrastructure.

Stanford University

Stanford's current primary source of potable water supply is from the San Francisco Regional Water System (RWS), which is operated by the San Francisco Public Utilities Commission

(SFPUC). This water is purchased by Stanford from SFPUC under a wholesale contract. Stanford has the capability to supplement potable supplies with groundwater if needed. In addition, Stanford uses local surface supplies and groundwater for non-potable uses, primarily for landscape irrigation. The non-potable distribution system is referred to as the Lake Water System. Details about each of these sources are provided below.

Surface Water from SFPUC

The SFPUC supplies water to both retail and wholesale customers. Retail customers include residents, businesses, and industries located within the City and County of San Francisco's boundaries. Wholesale customers include 26 cities and water supply agencies in Alameda, San Mateo and Santa Clara counties, including Stanford.

Stanford purchases treated water from SFPUC in accordance with the November 2018 Amended and Restated Water Supply Agreement between the City and County of San Francisco and Wholesale Customers in Alameda, San Mateo and Santa Clara Counties, which was adopted in 2019. The term of the agreement is 25 years, with a beginning date of July 1, 2009, and an expiration date of June 30, 2034. Per the agreement, Stanford has an Individual Supply Guarantee (ISG) of 3.03 million gallons per day (mgd), or 3,394 acre-feet per year (AFY), supplied by the SFPUC. Note that although expressed in units of mgd, the ISG is an overall annual average target. Daily or monthly usage may exceed this target, and this is not uncommon during the summer months. Over the last five years (2016-2020) Stanford has purchased between 46 percent and 49 percent of its ISG. Additional discussion of the SFPUC water supplies is provided in SFPUC's 2020 UWMP.

Groundwater

Groundwater pumped from five Stanford-owned and operated wells over the Santa Clara Valley Subbasin is currently used only for non-potable uses such as landscape irrigation and is relied upon most during dry years, although groundwater could be used to supplement potable water supply from SFPUC if needed. Groundwater is also pumped into Stanford's Felt Reservoir for rediversion into the Lake Water System.

Stanford's wells have a combined total pumping capacity of approximately 4,450 AFY. In the highest recent reporting year (FY 2013-14), Stanford withdrew a total of 1,142 AF from these wells. This was a dry year, and on average, Stanford pumps significantly less than this amount. A 2014 groundwater modeling study indicated that Stanford could withdraw up to 1,700 AFY from its wells on a continuous basis without impacting water quality in the aquifer or causing unacceptable impacts such as excessive drawdown or land subsidence.

Local Surface Water

Stanford holds a combination of riparian and pre-1914 appropriative rights reported under four Statements of Water Diversion and Use (S004660, S004661, S015695, and S015696) and one appropriative right licensed by SWRCB (L001723). These water rights support Stanford's diversion from Los Trancos Creek and San Francisquito Creek, two streams that flow through Stanford lands, which supply Stanford's Lake Water System. The rights provide water for recreation, irrigation, stock watering, and fire protection purposes.

Water is impounded seasonally (during periods of high flow) in two reservoirs above campus: Searsville Reservoir on Corte Madera Creek (just above its confluence with Bear Gulch Creek) and Felt Reservoir east of Los Trancos Creek. Water is then drawn from these reservoirs as needed. Because of the way in which waters from multiple sources commingle during diversion and storage, total diversion and usage statistics are reported in aggregate monthly quantities to the SWRCB on an annual basis. Together, the rights to diverted surface waters can yield 1,255 AFY to the Lake Water System. Lake water is not treated to meet domestic water quality standards. It is conveyed to campus via a separate system and used for the purposes of irrigation and backup fire protection.

Water Treatment and Distribution

Water Treatment

San José Water Company

Valley Water's imported and local surface water supplies are treated at three plants, the Rincondada, Penitencia, and Santa Teresa water treatment plants. The Santa Teresa Water Treatment Plant (WTP) is the largest of the three plants and serves San José. The facility has the capacity to treat and deliver 100 million gallons per day (MGD) (Valley Water, 2022).

San Francisco Public Utilities Commission

Water from SFPUC's RWS is treated at three plants serving the Hetch Hetchy, Alameda, and Peninsula water delivery systems. Water derived from the Hetch Hetchy system is treated by the Tesla WTP, which has a capacity of 315 MGD. Water derived from Alameda and Peninsula systems is treated at one of two treatment plants, the Sunol Valley WTP or the Harry Tracy WTP. The Sunol Valley WTP treats water from the Alameda system, and has a capacity of 160 MGD, while the Harry Tracy treats water from the Peninsula system, and has a capacity of 140 MGD (SFPUC, 2021).

Water Distribution

San José Water Company

In addition to its own water system, SJWC also operates, maintains, and improves the Cupertino Municipal Water System through a lease agreement. Combined, the SJWC and City of Cupertino water systems consist of approximately 2,450 miles of pipelines, 100 pressure zones, 225 booster pumps, 92 wells, 110 tanks and reservoirs, 11 raw water intakes, five raw water impoundments, three water treatment plants, and tens of thousands of other assets including valves, meters, service lines, fire hydrants, and chemical systems (SJWC, 2021).

Stanford University

Stanford's water infrastructure is made up of a network of supplies, storage and distribution facilities for domestic (potable), and non-potable sources. Specific components of Stanford's water service system include wells, reservoirs, pump stations, and creek diversion facilities, in addition to pipe networks (Santa Clara County 2018).

Wastewater

Wastewater generated in San José is treated at the San José-Santa Clara Regional Wastewater Facility (RWF), while wastewater generated on the Stanford campus is treated at the Palo Alto Regional Water Quality Control Plant (RWQCP).

Wastewater Treatment

San José-Santa Clara Regional Wastewater Facility

The San José-Santa Clara RWF is jointly owned by the cities of San José and Santa Clara and serves over 1.4 million people within a 300-square-mile area including San José, Santa Clara, Milpitas, Campbell, Cupertino, Los Gatos, Saratoga, and Monte Sereno. The facility has an average wet weather flow capacity of 167 MGD per day, of which approximately107 MGD is reserved for the City of San José (City of San José, 2011). In 2020, the facility treated a peak week flow of approximately 102 MGD, and thus it is operating at approximately 61 percent of its design capacity. Furthermore, about 66 MGD of the wastewater treated at the San José-Santa Clara RWF in 2020 was generated by San José, or about 61 percent of the City's treatment allocation (City of San José, 2020).

Palo Alto Regional Water Quality Control Plant

In addition to treating wastewater on the Stanford campus, the Palo Alto RWQCP treats wastewater generated in Palo Alto, Los Altos, Los Altos Hills, Mountain View, and the East Palo Alto Sanitary District. The facility has an average dry weather flow capacity of 39 MGD and an average wet weather flow of 80 MGD (City of Palo Alto 2017); approximately 2.11 MGD of the facility's average dry weather flow is reserved for the Stanford campus (Santa Clara County 2018). In 2021, the Palo Alto RWQCP treated an average dry weather flow of 16.4 MGD (City of Palo Alto 2022), and thus it is operating at approximately 42 percent of its design capacity (City of Palo Alto, 2012). Furthermore, about 0.82 MGD[1] of the wastewater treated at the facility was generated on the Stanford campus, approximately 39 percent of the Campus' treatment allocation.

Wastewater Conveyance

San José Sanitary Sewer System

San José's sanitary sewer system includes approximately 2,200 miles of sewer pipelines ranging from six to 90 inches in diameter. The topography of San José permits most of the sewer system to serve the City by gravity; areas that cannot rely on gravity are served by 16 sewer pump stations. Approximately 79 percent of the sewer lines are eight inches and smaller in diameter. The remaining 21 percent, primarily the 10-inch and larger pipes, comprise the trunk and interceptor system, which is the primary network for conveying flows generated from the City's service area to the San José-Santa Clara RWF. The interceptor system forms the backbone of the City's wastewater collection system and consists of approximately 28 miles of large sanitary sewer pipes ranging from 54-inches to 90-inches in diameter (City of San José, 2011).

[1] Approximately five percent of wastewater treated at the Palo Alto RWQCP is generated on the Stanford Campus (Weiss 2022) = 16.4 MGD X 0.05 percent = 0.82 MGD

Stanford Sanitary Sewer System

Wastewater generated by Stanford is collected in its sanitary sewer system and then conveyed off-site to and through the City of Palo Alto's sewer system to the Palo Alto RWQCP. The Stanford campus sanitary sewer system consists of 43 miles of sewer pipelines (Stanford, 2022c).

Stormwater Drainage

Stormwater in Santa Clara County is collected through a series of integrated and informal flooding control and stormwater drainage systems. The County administers the Santa Clara County Stormwater Management Program and coordinates the individual activities of National Pollutant Discharge Elimination System permits and programs with the cities Palo Alto and San José.

San José Storm Drainage System

San José's storm drainage system is comprised of a network of storm drain inlets, manholes, pipes, outfalls, channels, and pump stations designed to protect infrastructure and the traveling public from flood waters during storm events. The underground collection system consists of approximately 1,250 miles of reinforced concrete pipes varying in size from 12 to 144 inches in diameter that function by gravity to carry untreated stormwater to local creeks and rivers. Collected stormwater runoff is discharged to the creeks and rivers via storm outfall structures. The creeks and rivers, in turn, flow to the San Francisco Bay. In low lying areas of the City, stormwater pump stations are employed to facilitate drainage when gravity drainage is not possible or feasible (City of San José, 2011).

Stanford Storm Drainage System

The Stanford campus storm drainage system consists of an extensive network of piping and drainage ditches. The northwestern and southeast portions of campus are located with the San Francisquito Creek and Matadero Creek watersheds, respectively. Runoff generated within the San Francisquito Creek watershed is conveyed through large pipelines to San Francisquito Creek, just south of El Camino Real, while runoff generated within the Matadero Creek watershed is conveyed to a large Caltrans storm drain along El Camino Real, which then conveys storm water to Matadero Creek (Stanford, 2022d).

Other Utilities

Electricity and Natural Gas

Pacific Gas and Electric Company (PG&E) provides electric and natural gas service in Santa Clara County, including the City of San José. In the County, there are overhead and underground PG&E electric distribution systems, and overhead and underground secondary distribution and service system. There are also underground natural gas distribution systems.

In addition, electric service in San José is also provided by San José Clean Energy (SJCE), which is a community choice energy agency governed by the San José City Council as a City department. SJCE purchases power wholesale and makes retail sales to customers through

existing PG&E electrical infrastructure (San José Clean Energy, 2022). Finally, natural gas and electricity services are provided to the Stanford campus area by PG&E. Stanford purchases "direct access" electricity through an Energy Services Provided (ESP) for the majority (approximately 98 percent) of its campus operations in unincorporated Santa Clara County; however, PG&E provides electrical infrastructure and metering to all of the campus."

Telecommunication

The telecommunications systems serving the Stanford campus and City of San José consists of aboveground and buried telecommunications circuits from several providers, primarily AT&T, Verizon, and Comcast.

Solid Waste

Solid waste collection service in San José is provided by various franchised waste and recycling haulers. After collection, these haulers first take the solid waste to three material recover facilities in north San José prior to disposal in area landfills serving the City. Solid waste collection service on the Stanford campus is provided by Peninsula Sanitary Service, Inc., which provides recycling, composting, and solid waste management services.

Most of the municipal solid waste generated on the Stanford campus and in the City of San José is disposed of at the Newby Island Sanitary landfill in Milpitas while construction and demolition debris is processed at the Zanker Road Resource Recovery Facility in San José before disposal elsewhere. The Newby Island facility has a permitted capacity of 57.5 million cubic yards and is permitted to accept a maximum of 4,000 tons of solid waste per day. With a remaining disposal capacity of about 16.4 million cubic yards, Newby Island Sanitary landfill is expected to cease operation on January 1, 2041 (CalRecycle, 2022a). The Zanker Road facility recycles more than 80 percent of the construction and demolition debris that it receives, with even higher rates of recycling for many types of building materials. Residual materials are disposed of at the Newby Island landfill.

4.16.3 Regulatory Setting

National Pollutant Discharge Elimination System

The NPDES is a nationwide program for the permitting of surface water discharges, including from municipal and industrial point sources. In California, NPDES permitting authority is delegated to and administered by the nine regional water quality control boards (regional water boards). The San Francisco Bay Regional Water Board has set standard conditions for each permittee in the Bay Area, including effluent limitation and monitoring programs. In addition to issuing and enforcing compliance with NPDES permits, each regional water board prepares and revises the relevant basin plan (refer to the following discussion of state regulations).

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA), Subtitle D, contained in Title 42 of the United States Code Section 6901 et seq. contains regulations for municipal solid waste landfills

and requires states to implement their own permitting programs incorporating the federal landfill criteria. The federal regulations address the location, operation, design, groundwater monitoring, and closure of landfills. The U.S. EPA waste management regulations are codified in 40 CFR 239–282. The RCRA Subtitle D is implemented by Title 27 of the PRC, approved by the U.S. EPA.

State

Urban Water Management Planning Act

California Water Code Section 10610 et seq. requires all public water systems that provide water for municipal purposes to more than 3,000 customers, or that supply more than 3,000 acre-feet per year (AFY), to prepare an Urban Water Management Plan (UWMP). UWMPs are key water supply planning documents for municipalities and water purveyors in California, and often form the basis of Water Supply Assessments (WSAs) (refer to the following discussion of Senate Bill [SB] 610 and SB 221) prepared for individual projects. UWMPs must be updated at least every 5 years on or before December 31, in years ending in 5 and 0.

The SFPUC, Valley Water, and SJWC adopted their 2020 UWMPs and associated Water Shortage Contingency Plans in June 2021 (SFPUC, 2021; Valley Water, 2021; SJWC, 2021).

Senate Bills 610 and 221

The purpose and legislative intent of SB 610 and SB 221, enacted in 2001, is to preclude the approval of certain development projects without specific evaluations performed and documented by the local water provider that indicate that water is available to serve the project. SB 610 requires the local water provider for a large-scale development project to prepare a WSA.[2] The WSA evaluates the water supply available for new development based on anticipated demand. The WSA must be included in the environmental document. The lead agency may evaluate the information presented in the WSA, and then must determine whether the projected water supplies would be sufficient to satisfy the project's demands in addition to existing and planned future uses.

SB 221 requires the local water provider to provide "written verification" of "sufficient water supplies" to serve subdivisions involving more than 500 residential units per Government Code Section 66473.7. Sufficiency is different under SB 221 than under SB 610. Under SB 221, sufficiency is determined by considering:

- The availability of water over the past 20 years;

[2] All projects that meet any of the following criteria require a WSA: (1) A proposed residential development of more than 500 dwelling units; (2) a proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space; (3) a proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space; (4) a proposed hotel or motel, or both, having more than 500 rooms; (5) a proposed industrial, manufacturing, or processing plant, or industrial park 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; (6) a mixed-use project that includes one or more of the projects specified in SB 610; or (7) a project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling-unit project.

- The applicability of any urban-water shortage contingency analysis prepared in compliance with Water Code Section 10632;
- The reduction in water supply allocated to a specific use by an adopted ordinance; and
- The amount of water that can be reasonably relied upon from other water supply projects, such as conjunctive use, reclaimed water, water conservation, and water transfer.

As a result of the information contained in the written verification, as part of the tentative map approval process, a city or county may attach conditions to ensure that an adequate water supply is available to serve the proposed plan. Typically, following project certification, an additional water supply verification must be completed at the tentative map stage, prior to adoption of the final map, for certain tentative maps. In most cases, a WSA prepared under SB 610 would meet the requirement for proof of water supply under SB 221.

Bay-Delta Plan Amendment

In December 2018, the SWRCB adopted amendments to the Water Quality Control Plan for the San Francisco Bay Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan Amendment) to establish water quality objectives to maintain the health of the Bay-Delta ecosystem. Portions of the projected water supply for the proposed project could be influenced by this action. The SWRCB is required by law to regularly review this plan. The adopted Bay-Delta Plan Amendment was developed with the stated goal of increasing salmonid populations in three San Joaquin River tributaries (the Stanislaus, Merced, and Tuolumne Rivers) and the Bay-Delta. The Bay-Delta Plan Amendment requires the release of 40 percent of the "unimpaired flow" on the three tributaries from February through June in every year type, whether wet, normal, dry, or critically dry.

Portions of the projected water supply for the proposed project could be influenced by this action, particularly with respect to water supplied to Stanford by the SFPUC. The SWRCB stated that it intended to implement the Bay-Delta Plan Amendment on the Tuolumne River by the Year 2022, assuming all required approvals were obtained by that time. But implementation of the Plan Amendment has not occurred to date and is uncertain for several reasons:

- Since adoption of the Bay-Delta Plan Amendment, over a dozen lawsuits have been filed in both state and federal court, challenging the SWRCB's adoption of the Bay-Delta Plan Amendment, including two legal challenges filed by the federal government, at the request of the U.S. Department of Interior, Bureau of Reclamation in state and federal courts. These cases are in the early stage and there have been no dispositive court rulings to date.
- The Bay-Delta Plan Amendment is not self-implementing and does not allocate responsibility for meeting its new flow requirements to the SFPUC or any other water rights holders. Rather, the Plan Amendment merely provides a regulatory framework for flow allocation, which must be accomplished by other regulatory and/or adjudicatory proceedings, such as a comprehensive water rights adjudication or, in the case of the Tuolumne River, the 401 certification process in the Federal Energy Regulatory Commission's (FERC) relicensing proceeding for Don Pedro Dam. This process and the other regulatory and/or adjudicatory proceedings would likely face legal challenges and have lengthy timelines, and quite possibly

could result in a different assignment of flow responsibility (and therefore a different water supply impact on the SFPUC).

- In recognition of the obstacles to implementation of the Bay-Delta Plan Amendment, SWRCB Resolution No. 2018-0059 adopting the Bay-Delta Plan Amendment directed staff to help complete a "Delta watershed-wide agreement, including potential flow measures for the Tuolumne River" by March 1, 2019, and to incorporate such agreements as an "alternative" for a future amendment to the Bay-Delta Plan to be presented to the SWRCB "as early as possible after December 1, 2019." In accordance with the SWRCB's instruction, on March 1, 2019, SFPUC, in partnership with other key stakeholders, submitted a proposed project description for the Tuolumne River that could be the basis for a voluntary substitute agreement with the SWRCB ("March 1st Proposed Voluntary Agreement"). On March 26, 2019, the Commission adopted Resolution No. 19-0057 to support SFPUC's participation in the Voluntary Agreement negotiation process.
- In November 2022, the SFPUC, Modesto Irrigation District, and Turlock Irrigation District signed a memorandum of understanding with the State to advance a voluntary agreement for the Tuolumne River. The proposed eight-year program includes a combination of flow and non-flow measures sufficient to improve all life-stages of native fish populations in the lower Tuolumne River. The goal of the Voluntary Agreement is to strike the right balance between environmental stewardship and water reliability.
- Because of the uncertainties surrounding the implementation of the Bay-Delta Plan Amendment, the SFPUC 2020 UWMP analyzed two supply scenarios, one with the Bay-Delta Plan Amendment assuming implementation starting in 2023, and one without the Bay-Delta Plan Amendment. Results of these analyses are summarized as follows:
  - *If the Bay-Delta Plan Amendment is implemented*, SFPUC will be able to meet its contractual obligations to its wholesale customers as presented in the SFPUC 2020 UWMP in normal years but would experience significant supply shortages in dry years. In single dry years, supply shortages for SFPUC's wholesale customers collectively would range from 36 to 46 percent. In multiple dry years for SFPUC's wholesale customers collectively, supply shortages would range from 36 to 54 percent. Implementation of the Bay-Delta Plan Amendment will require rationing in all single dry and multiple dry years through 2045.
  - *If the Bay-Delta Plan Amendment is <u>not</u> implemented*, SFPUC would be able to meet 100 percent of the projected purchases of its wholesale customers during all year types through 2045 except during the fourth and fifth consecutive dry years for base year 2045 when 15 percent wholesale supply shortages are projected for SFPUC's total supply to all wholesale customers.
- In June 2021, in response to various comments from wholesale customers regarding the reliability of the RWS as described in SFPUC's 2020 UWMP, the SFPUC provided a memorandum describing SFPUC's efforts to remedy the potential effects of the Bay-Delta Plan Amendment. As described in the memorandum (see Appendix C of this EIR), SFPUC's efforts include the following:
  - Pursuing a Tuolumne River Voluntary Agreement.
  - Evaluating the drought planning scenario in light of climate change.
  - Pursuing alternative water supplies.
  - In litigation with the State over the Bay-Delta Plan Amendment.

- In litigation with the State over the proposed Don Pedro FERC Water Quality Certification.

Assembly Bill 325

Assembly Bill (AB) 325, the Water Conservation in Landscaping Act of 1990, directs local governments to require the use of low-flow plumbing fixtures and the installation of drought-tolerant landscaping in all new development. Pursuant to the Water Conservation in Landscaping Act, the California Department of Water Resources developed a Model Water Efficient Landscape Ordinance.

California Health and Safety Code Section 116555

Under California Health and Safety Code Section 116555, a public water system must provide a reliable and adequate supply of pure, wholesome, healthful, and potable water.

Water Code Section 10608 et seq. (Senate Bill 7 or Senate Bill X7-7)

Water Code Section 10608 et seq. required urban retail water suppliers to set and achieve water use targets that would help the state achieve a 20 percent per capita reduction in urban water use by 2020. SB X7-7 required each urban retail water supplier to develop urban water use targets and an interim urban water use target, in accordance with specified requirements. The bill is intended to promote urban water conservation standards that are consistent with the California Urban Water Conservation Council's adopted best management practices and the requirements for demand management in California Water Code Section 10631 as part of UWMPs.

Senate Bill 7 (2016)

In September 2016, Governor Jerry Brown signed into law SB 7, which requires new multi-family residential rental buildings in California constructed after January 1, 2018, to include a sub-meter for each dwelling unit and to bill tenants in apartment buildings accordingly for their water use to encourage water conservation.

Executive Orders B-29-15 and B-37-16

In April 2015, Governor Brown issued Executive Order B-29-15, which called for mandatory water use reductions. The executive order required cuts for public landscaping and institutions that typically use large amounts of water (e.g., golf courses), banned new landscape irrigation installation, and required municipal agencies to implement conservation pricing, subsidize water-saving technologies, and implement other measures to reduce the state's overall urban water use by 25 percent. The order also required local water agencies and large agricultural users to report their water use more frequently.

In May 2016, Governor Brown issued Executive Order B-37-16, which made the mandatory water use reduction of 25 percent permanent and directed the California Department of Water Resources and State Water Board to strategize further water reduction targets. The order also made permanent the requirement that local agencies report their water use monthly. Additionally, certain wasteful practices such as sidewalk hosing and runoff-causing landscape irrigation were

permanently outlawed, while local agencies must prepare plans to handle droughts lasting 5 years.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Act (Division 7 of the California Water Code) provides the basis for water quality regulation in California. The Porter-Cologne Act defines water quality objectives as the limits or levels of water constituents that are established for reasonable protection of beneficial uses of surface, ground, and saline waters of the state. The State Water Board administers water rights, water pollution control, and water quality functions throughout California, while the San Francisco Bay Regional Water Board conducts regional planning, permitting, and enforcement activities. For additional requirements, refer to Section 4.9, *Hydrology and Water Quality*.

Water Quality Order No. 2004-12-DWQ

In July 2004, the State Water Board adopted Water Quality Order No. 2004-12-DWQ (General Order) which incorporates the minimum standards established by the Part 503 Rule and expands upon them to fulfill obligations to the California Water Code. However, since California does not have delegated authority to implement the Part 503 Rule, the General Order does not replace the Part 503 Rule. The General Order also does not preempt or supersede the authority of local agencies to prohibit, restrict, or control the use of biosolids subject to their jurisdiction, as allowed by law.

California Green Building Standards Code

Water and Wastewater

Part 11 of the Title 24 Building Energy Efficiency Standards is referred to as the California Green Building Standards Code (CALGreen Code). The CALGreen Code is intended to encourage more sustainable and environmentally friendly building practices, conserve natural resources, and promote the use of energy-efficient materials and equipment. Since 2011, the CALGreen Code has been mandatory for all new residential and non-residential buildings constructed in the state. Mandatory measures related to water conservation include water-conserving plumbing fixture and appliance requirements, including flow rate maximums, compliance with state and local water-efficient landscape standards for outdoor potable water use in landscape areas, and recycled water systems, where available. The CALGreen Code was most recently updated in 2019 to include new mandatory measures for residential and non-residential uses; the 2019 amendments to the CALGreen Code became effective January 1, 2020. Updates include more stringent requirements for residential metering faucets, and a requirement that all residential and non-residential developments adhere to a local water efficient landscape ordinance or to the State of California's Model Water Efficient Landscape Ordinance, whichever is more stringent.

Solid Waste

As amended, the CALGreen Code (California Code of Regulations Title 24, Part 11) requires that readily accessible areas be provided for recycling by occupants of residential uses. The CALGreen Code also requires that residential building projects recycle and/or salvage for reuse a minimum of 65 percent of their non-hazardous construction and demolition waste or comply with a local

construction and demolition waste management ordinance, whichever is more stringent (Section 5.408.1). The 2016 version of the code increased the minimum diversion requirement for non-hazardous construction and demolition waste to 65 percent from 50 percent (in the 2013 and earlier versions) in response to AB 341, which declared the policy goal of the state that not less than 75 percent of solid waste generated would be source reduced, recycled, or composted by 2020.

Assembly Bill 939 (California Integrated Waste Management Act)

AB 939, enacted in 1989 and known as the Integrated Waste Management Act (Public Resources Code Section 40050 et seq.), requires each city and county in the state to prepare a Source Reduction and Recycling Element to demonstrate a reduction in the amount of waste being disposed to landfills. The act required each local agency to divert 50 percent of all solid waste generated within the local agency's service area by January 1, 2000. Diversion includes waste prevention, reuse, and recycling. SB 1016 revised the reporting requirements of AB 939 by implementing a per capita disposal rate based on a jurisdiction's population (or employment) and its disposal.

The Integrated Waste Management Act requires local agencies to maximize the use of all feasible source reduction, recycling, and composting options before using transformation (incineration of solid waste to produce heat or electricity) or land disposal. The act also resulted in the creation of the state agency now known as the California Department of Resources Recycling and Recovery (CalRecycle). Under the Integrated Waste Management Act, local governments develop and implement integrated waste management programs consisting of several types of plans and policies, including local construction and demolition ordinances. The act also set in place a comprehensive statewide system of permitting, inspections, and maintenance for solid waste facilities, and authorized local jurisdictions to impose fees based on the types and amounts of waste generated.

In 2011, AB 341 amended AB 939 to declare the policy goal of the state that not less than 75 percent of solid waste generated would be source reduced, recycled, or composted by the year 2020, and annually thereafter.

Assembly Bills 341 and 1826

AB 341, signed into law in 2012, requires multi-family dwellings to recycle. AB 1826 (2014) furthered diversion and recycling requirements by requiring that multi-family dwellings with more than five units also divert organic material. AB 1826 does not require multi-family dwellings to divert organic food waste.

Senate Bill 1383

SB 1383 established targets to achieve a 50 percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020 and a 75 percent reduction by 2025. SB 1383 granted CalRecycle the regulatory authority required to achieve the organic-waste disposal reduction targets. It also established a target of recovering not less than 20 percent of currently disposed edible food for human consumption by 2025.

Regional

National Pollutant Discharge Elimination System Waste Discharge Regulations

Discharges of stormwater runoff from municipal separate storm sewer systems (MS4s) are regulated by the Municipal Regional Stormwater NPDES permit, under Order No. R2-2015-0049; NPDES Permit No. CAS612008, issued by the San Francisco Bay Regional Water Board.

Under CWA Section 402(p), stormwater permits are required for discharges from MS4s that serve populations of 100,000 or more. The Municipal Regional Permit (MRP) manages the Phase I Permit Program (serving municipalities of more than 100,000 people), the Phase II Permit Program (for municipalities of fewer than 100,000 people), and the Statewide Storm Water Permit for the California Department of Transportation.

The State Water Board and the individual water boards implement and enforce the MRP. Multiple municipalities, including the City of San José, along with Santa Clara County, are co-permittees.

Municipal Regional Permit Provision C.3

Under Provision C.3 of the MRP, new and redevelopment projects that create or replace 10,000 square feet or more of impervious surface area, or 5,000 square feet or more of impervious surface area for regulated projects involving special land use categories (i.e., auto service, retail gasoline station, restaurant, and/or uncovered parking), are required to implement site design, source control, and Low Impact Development–based stormwater treatment controls to treat post-construction stormwater runoff. Low Impact Development–based treatment controls are intended to maintain or restore the site's natural hydrologic functions, maximizing opportunities for infiltration and evapotranspiration, and for using stormwater as a resource (e.g., rainwater harvesting for non-potable uses). The MRP also requires that stormwater treatment measures be properly installed, operated, and maintained.

In addition, the MRP requires new development and redevelopment projects that create or replace 1 acre or more of impervious surface to manage development-related increases in peak runoff flow, volume, and duration, where such hydromodification is likely to cause increased erosion, generate silt pollutants, or cause other impacts on local rivers, streams, and creeks. Projects may be deemed exempt from these requirements if they do not meet the minimum size threshold, drain into tidally influenced areas or directly into San Francisco Bay, or drain into hardened channels, or if they are infill projects in sub-watersheds or catchment areas that are at least 65 percent impervious.

Local

Santa Clara County General Plan

The Santa Clara County General Plan is a comprehensive long-range general plan for the physical development of the County (County of Santa Clara, 1994). The General Plan contains the current County of Santa Clara Housing Element, which was adopted in 2015. The various elements within the General Plan include goals and policies for the physical development of the County.

General Plan strategies and policies related to utilities and service systems and relevant to implementation of the HEU are listed below.

Strategy: Conserve and Reclaim Water

Policies C-RC-9: Conservation should continue to be considered an integral component of local water "supply" resources, effectively minimizing the amount of supplemental supplies which must be obtained from other sources.

Policies C-RC-10: Educational measures should be continued/increased in order inform the public of the need for conservation over the long term, rather than as a temporary response to periodic drought.

Policies C-RC-11: Domestic conservation should be encouraged throughout Santa Clara County by a variety of means, including reduced flow devices, drought-resistant landscaping, and elimination of wasteful practices.

Policies C-RC-13: Use of reclaimed wastewater for landscaping and other uses, including groundwater recharge if adequately treated, should be encouraged and developed to the maximum extent possible.

Strategy: Obtain Additional Imported Water Sources

Policies C-RC-14: Reforms of the state-wide system of water allocation and distribution should be encouraged which facilitate the ability of urban area water suppliers to purchase needed supplies through market mechanisms.

Strategy: Make System and Local Storage Capacity Improvements

Policies C-RC-15: Potential for new and/or expanded local reservoirs should be thoroughly examined as a part of any long-term strategy for assuring adequate water supply, taking into full account environmental and financial feasibility.

Policies C-RC-16: Seismic safety considerations for new and existing reservoirs should be addressed in order to ensure water supply and public safety in the event of earthquake.

Strategy: Maintain Drought Contingency and Groundwater Basin Management Plans

Policies C-RC-15: Drought contingency plans and groundwater basin management programs should be reviewed and updated to prepare for the likelihood of future periods of short-term drought and to minimize:

a. the potential adverse impacts of drought upon households, business, and industry, and

b. the possibility of groundwater overdraft and land subsidence.

Strategy: Encourage Source Reduction and Reuse

Policies C-RC-66**:** Santa Clara County shall seek innovative and effective means of reducing the primary components of solid waste generated by homes and businesses, including but not limited to such efforts as reducing wastepaper, junk mail, unnecessary product containers, and yard waste.

Strategy: Facilitate Recycling and Promote Composting Strategy

***Policies C-RC-67*:** Adequate solid waste collection and recycling services shall be provided to all county residents. Recycling services for all commercial and industrial establishments shall be evaluated and expanded wherever feasible.

***Policies C-RC-68*:** Santa Clara County shall consider efforts to increase markets for goods produced from recycled/reused materials as an essential feature of all efforts to manage solid waste and conserve landfill capacity and shall include such considerations in policies regarding acquisition of materials, equipment, and facilities.

***Policies C-RC-70*:** Neighborhood and community composting centers should be explored and evaluated for purposes of reducing landfilled yard waste.

Strategy: Explore Transformation Opportunities Strategy

***Policies C-RC-71*:** Potential applications for waste transformation and energy generation technologies should be explored and encouraged.

Strategy: Plan for Adequate Landfill Capacity

***Policies C-RC-72*:** Decision-making regarding the siting of new landfills, the expansion of existing sites, and the location of other solid waste management facilities shall balance the need for such facilities with the full range of environmental quality issues involved.

***Policies C-RC-73*:** Santa Clara County acknowledges the need for long term disposal capacity and will strive to maintain 20 to 30 years of ongoing collective disposal capacity.

***Policies C-RC-74*:** Expansion of existing landfill sites should be encouraged and explored thoroughly in preference to siting new landfills.

Strategy: Prevent Wastewater Contamination of Groundwater Supplies

Policies C-HS-42: The long-term viability and safety of underground aquifers and groundwater systems countywide shall be protected to highest degree feasible.

Policies C-HS-43: Hazardous materials, whether commercial, industrial, agricultural, or residential in character, should not be disposed of in any wastewater or on-site wastewater treatment system.

Stanford University Community Plan

The current SCP was adopted in 2000 (County of Santa Clara, 2000). The primary purpose of the SCP is to guide future use and development of Stanford lands in a manner that incorporates key County General Plan principles of compact urban development, open space preservation, and resource conservation. The SCP was adopted as an amendment of the General Plan in the manner set forth by California Government Code Section 65350 et seq. Any revisions to the SCP must also be made according to the provisions of State law for adopting and amending general plans. In addition to the generally applicable policies in the County General Plan, the SCP includes several water quality and watershed management policies that apply specifically within the SCP area (pp. 104-110).

4.16.4 Environmental Impacts and Mitigation Measures

Significance Thresholds

The thresholds used to determine the significance of impacts related to utilities and services systems are based on Appendix G of the *CEQA Guidelines*. Implementation of the proposed project would have a significant impact on the environment if it would:

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

Methodology and Assumptions

Potential impacts to utilities and service systems are discussed based on the CEQA Significance Thresholds included in Appendix G of the CEQA Guidelines as listed above. Impacts are evaluated largely based on information included in the Stanford Community Plan and the General Plan for the City of San José, and the UWMPs for the SFPUC, Valley Water, and SJWC, as identified in the local regulatory setting of this section. Water supply to serve the project is assessed using the WSA's prepared for the project by SJWC and West Yost, as described in the introduction to this section

Residential development projects that could result from the project's implementation would be regulated by the various laws, regulations, and policies summarized above in Section 4.16.3, *Regulatory Setting*. Compliance with applicable federal, state, and local laws and regulations is assumed in this analysis and local and state agencies would be expected to continue to enforce applicable requirements to the extent that they do so now. Note that compliance with many of the regulations is a condition of permit approval.

After considering the implementation of the project as described in Chapter 3, *Project Description*, and compliance with the required regulatory requirements, the environmental analysis below identifies if the defined significance thresholds would be exceeded and, therefore, a significant impact would occur.

Impacts and Mitigation Measures

Impacts

Impact UT-1: Implementation of the proposed project would not 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. (*Less than Significant Impact*)

Housing Element Update and Stanford Community Plan

Implementation of the project would provide for the development of additional housing units on the Stanford campus and in the City of San José that would result in a subsequent increase in demand for water, wastewater treatment, storm water drainage, electric power, natural gas, and telecommunications facilities. Individual projects may require utility infrastructure improvements to extend services to particular parcels. All the HEU opportunity sites are infill in nature and are in areas that have been urbanized and developed for many decades. Extension of utilities infrastructure would likely occur in existing adjacent roadways and, aside from short-term construction disturbance, would not result in any unusual or further environmental impacts than identified elsewhere in this EIR for overall construction activity associated with the project. Individual projects would also pay applicable development and utility capacity impact and connection fees to pay their fair share towards any necessary utility system facility upgrades.

Water

Stanford University owns and maintains the water distribution mains that provide water service to campus while SJWC owns and maintains the water distribution mains that provide water service to parcels located within its service area. Future development projects would be required to undergo environmental review when proposed. As part of that process, project applicants would be required to ensure that each provider has sufficient capacity to provide water as specific development projects are proposed. Projects would also be subject to each jurisdictions water connection fee, which pays for each project's fair share of capital facilities including those that serve the entire water system such as the aqueducts and raw water facilities, regional facilities such as treatment plants and distribution facilities, and future water supply upgrades needed to meet long-term increases in water demand created by new customers.

Development under each project would also be required to comply with the CALGreen Code, which requires that new construction use high-efficiency plumbing fixtures, such as high-efficiency toilets, urinals, showerheads, and faucet fixtures. For outdoor water use, the CALGreen Code requires that irrigation controllers be weather- or soil moisture–based and automatically account for rainfall or be attached to a rainfall sensor. Implementation of water conservation and efficiency measures would minimize the potable water demand generated and lessen the need for capacity or other improvements to the water system.

Wastewater

Stanford University owns and maintains the wastewater system that conveys wastewater generated on campus to the Palo Alto RWQCP while the City of San José owns and maintains the

wastewater system that conveys wastewater generated in the City to the San José-Santa Clara RWF. As discussed above, future development projects would be required to undergo environmental review when proposed. Through this process, the County and the City of San José would ensure that there is adequate sewage collection, treatment, and disposal facilities to serve specific development projects as they are proposed. Sewer connection fees would also be levied to ensure that each project pays its fair share for capital improvements to maintain and expand each system.

Development under the project would be required to comply with the CALGreen Code, which requires that new construction use high-efficiency plumbing fixtures, such as high-efficiency toilets, urinals, showerheads, and faucet fixtures. Implementation of water conservation and efficiency measures would reduce the wastewater generated.

Stormwater

Stanford University owns and maintains the stormwater drainage system on campus while the City of San José owns and maintains the stormwater drainage system in its jurisdiction. As discussed above, future development projects would be required to undergo environmental review when proposed. This process would ensure that impacts due to new development on the storm drainage systems on the Stanford campus and within each jurisdiction where the housing opportunity sites are located are considered. Developments facilitated by the project would also be subject to stormwater connection fees, which funds improvements to existing drainage facilities and infrastructure and designing and constructing future drainage facilities and infrastructure resulting from the demand on the system created by new development.

As part of the review process for individual development projects that create or replace 10,000 square feet of impervious surface area, preparation of a stormwater control plan would be required. In addition, projects recreating or replacing an acre or more of impervious area (unless exempted) must also provide flow controls (or hydromodification management measures) so that post-project runoff does not exceed estimated pre-project rates and durations. Regulated projects for which building or grading permits are issued must include Low Impact Development (LID) design measures (such as pervious paving or bioretention areas) for stormwater capture and pretreatment.

The County and each jurisdiction where the project sites would be located have regulatory requirements for stormwater management and discharge control. Project development would be required to demonstrate that stormwater capacity exceedances would not occur by completing and implementing a stormwater management and control plan for the projects complete with hydromodification area calculations and LID measures, as applicable. The stormwater management plans submitted for projects would be subject to engineering review and approval by the County and each jurisdiction.

Electricity, Natural Gas, and Telecommunications Facilities

PG&E provides electric and natural gas service in Santa Clara County, including the City of San José. In addition, electric service in San José is also provided by SJCE while Stanford obtains a majority of its electricity from Calpine. The telecommunications system serving the County

consists of aboveground and buried telecommunications circuits from several providers, primarily AT&T and Comcast. As discussed above, future development projects would be required to undergo environmental review when proposed. This process would ensure that adequate electricity, natural gas, and telecommunications facilities are provided at the time specific development projects are proposed. New meter and service connections would be coordinated with the provider at the time new development is proposed. As discussed in Section 4.5, *Energy*, future development would also be subject to a suite of programs and regulations that would reduce energy use.

Summary

Aside from short-term construction disturbance, no further environmental impacts would be generated beyond those identified elsewhere in this EIR for overall construction activity for the project. As such, implementation of the project would not 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. The impact of the project with respect to utility infrastructure would be **less than significant**.

Mitigation Measures: None required.

Impact UT-2: Implementation of 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. (*Less than Significant Impact*)

Housing Element Update and Stanford Community Plan

The WSAs that were prepared for the project determined that the projected water demand for the project would be approximately 1,443 AFY, with 1,186 AF of that amount being used to serve the housing sites in San José and 257 AF being used to serve the housing sites on the Stanford campus as well as the future potential school on the campus. Water supply availability and reliability for the housing opportunity sites served by SJWC is discussed below, and water supply for the proposed development on the Stanford campus is also discussed. The information and analysis presented here is based on the WSAs prepared by SJWC and West Yost, respectively, for the housing opportunity sites in San José and for the proposed development on the Stanford campus. These WSAs are included as Appendix C of this EIR.

San José Water Company

The WSA prepared by SJWC for the proposed housing opportunity sites in San José assumed that each site would be built at the maximum densities provided for in the HEU, or 6,281 units in total. The projected water demand for this number of units would be 1,186 AFY. This amount represents a 0.98 percent increase in total system usage when compared to SJWC's 2020 potable water production. The increased demand is consistent with forecasted demands represented in SJWC's 2020 UWMP, which projected a 12.2 percent increase in total system demand between 2020 demand and projected 2045 demand.

SJWC currently has contracts or owns rights to receive water from the following sources: 1) Groundwater from the Santa Clara Subbasin; 2) Imported and local surface water from Valley Water; 3) Local surface water from Los Gatos Creek, Saratoga Creek, and local watersheds; and 4) Recycled water from South Bay Water Recycling. SJWC also works closely with Valley Water to manage its demands and imported water needs. The projected water demand for this project is within previously determined growth projections for water demand in SJW's system.

As described in the SJWC WSA and based on Valley Water's water supply plans and UWMP projections, SJWC expects to be able to meet the needs of the service area through at least 2045 for average and single-dry years without a call for water use reductions. In the words of the WSA, "the impact of the proposed project is not consequential and SJWC has the capacity to serve this project through buildout based on current water supply capacity and Valley Water's proposed water supply projects." Valley Water is pursuing water supply solutions to meet the established level of service goal to provide 80 percent of annual water demand for drought years. After comparing estimated demand associated with this project to water supplies, based on both the SJWC and Valley Water UWMPs, SJWC has determined that the water quantity needed for the project is within normal growth projections and expects for there to be sufficient water available to serve the project.

Stanford University

The WSA prepared by West Yost for the proposed housing opportunity sites and future potential school on the Stanford campus assumed that each housing site would be built at the maximum densities provided for in the HEU, or 2,160 units in total, and that the potential future school would house 420 students. The projected water demand for this number of units would be 257 AFY, with 242 AFY required for the housing sites and 15 AFY required for the school.

Stanford's current primary source of potable water supply is from the San Francisco Regional Water System (RWS), which is operated by the SFPUC. This water is purchased by Stanford from SFPUC under a wholesale contract. Stanford has the capability to supplement potable supplies with groundwater if needed. In addition, Stanford uses local surface supplies and groundwater for non-potable uses, primarily for landscape irrigation.

Information regarding the reliability of purchased water from SFPUC for Stanford was provided by the Bay Area Water Supply & Conservation Agency (BAWSCA) in coordination with SFPUC. In December 2018, the State Water Resources Control Board adopted amendments to the Water Quality Control Plan for the San Francisco Bay Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan Amendment) to establish water quality objectives to maintain the health of the Bay-Delta ecosystem. The 2018 Bay-Delta Plan Amendment would require the release of 30 to 50 percent of the "unimpaired flow" from the Stanislaus, Merced, and Tuolumne Rivers, tributaries to the San Joaquin River, from February through June in every year type; thus, reducing available water supply for SFPUC. If implemented, the Bay-Delta Plan Amendment has the potential to have significant impacts on the reliability of water from SFPUC and on the availability of water during supply shortages. Because of the uncertainties surrounding the implementation of the Bay-Delta Plan Amendment, the SFPUC 2020 UWMP analyzed two supply scenarios, one with the Bay-Delta Plan Amendment assuming implementation starting in

2023, and one without the Bay-Delta Plan Amendment. Results of these analyses are summarized as follows:

- *If the Bay-Delta Plan Amendment is implemented*, SFPUC will be able to meet its contractual obligations to its wholesale customers as presented in the SFPUC 2020 UWMP in normal years but would experience significant supply shortages in dry years. In single dry years, supply shortages for SFPUC's wholesale customers collectively would range from 36 to 46 percent. In multiple dry years for SFPUC's wholesale customers collectively, supply shortages would range from 36 to 54 percent. Implementation of the Bay-Delta Plan Amendment will require rationing in all single dry and multiple dry years through 2045.

- *If the Bay-Delta Plan Amendment is not implemented*, SFPUC would be able to meet 100 percent of the projected purchases of its wholesale customers during all year types through 2045 except during the fourth and fifth consecutive dry years for base year 2045 when 15 percent wholesale supply shortages are projected for SFPUC's total supply to all wholesale customers.

Because of the uncertainties surrounding the implementation of the Bay-Delta Plan Amendment and its impacts on the Stanford water supply, the WSA prepared for the Stanford portion of the project presented findings for Stanford under two scenarios, one assuming the Bay-Delta Plan Amendment is not implemented and one assuming that the Bay-Delta Plan Amendment is implemented. The analysis found that *without* the Plan's implementation, the total projected water supplies determined to be available in single dry years and multiple dry years are only slightly lower than the projected water demand associated with Stanford's existing and planned future uses, including the proposed project, through 2045. Based on SFPUC's analysis, a 15 percent supply shortfall is projected during the fourth and fifth consecutive dry years for base year 2045. For Stanford, the projected SFPUC multiple dry year supply availability, in combination with Stanford's groundwater and local surface water supply availability, results in projected multiple dry year demand shortfalls (7 percent). These shortfalls are significantly less than the projected demand shortfalls if the Bay-Delta Plan Amendment is implemented.

The analysis found that *with* the Plan's implementation, significant supply shortfalls are projected in dry years for all agencies that receive water supplies from the SFPUC RWS. For Stanford, the projected SFPUC dry year supply availability, in combination with Stanford's groundwater and local surface water supply availability, results in projected demand shortfalls in a single dry year in 2045 (6 percent) and in multiple dry years (ranging from 6 to 33 percent) through 2045.

If demand shortfalls do occur (from any cause, such as droughts, impacted distribution system infrastructure, regulatory-imposed shortage restrictions, etc.), Stanford expects to meet these demand shortfalls through water demand reductions and other shortage response actions. The proposed project would be subject to the same water conservation and water use restrictions as other water users within Stanford's system. As described in the WSA, the SFPUC is implementing the Alternative Water Supply Program (AWSP) to investigate and plan for new water supplies to address future long-term water supply reliability challenges and vulnerabilities on the RWS. In addition, the SFPUC, along with the Modesto Irrigation District and the Turlock Irrigation District, have entered into a memorandum of understanding with the State to develop a Voluntary Agreement for the Tuolumne River. The Tuolumne River Voluntary Agreement

provides a combination of flow and non-flow measures sufficient to improve all life-stages of native fish populations in the lower Tuolumne River. The goal of the Voluntary Agreement is to strike the right balance between environmental stewardship and water reliability.

Based on the above, while water supply shortfalls are projected for Stanford in single dry and multiple dry years with implementation of the Bay-Delta Plan Amendment, these projected shortfalls could be overcome through the SFPUC's various projects, programs and plans and further addressed through implementation of the water shortage contingency measures implemented by Stanford and SFPUC. In addition, development under the proposed project would be required to adhere to all applicable regulations that promote water conservation and water use efficiencies. While results of the previously mentioned AWSP projects, programs and plans and demand reductions cannot be quantified, it is reasonable to expect that many of the projects, programs and plans would be successful and additional water supplies and demand reductions can be obtained. For these reasons, development facilitated on the Stanford campus by the project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal years. In single dry and multiple dry years, demand reduction measures would further reduce demand to meet the water supply shortage.

Summary

Based upon the above information, and as detailed in the attached WSAs in Appendix C of this EIR, sufficient water supplies are available to serve the project. As is the case currently, shortages during dry years would be managed through conservation measures and demand management reductions. The project's impact with respect to water supply would therefore be **less than significant**.

Mitigation Measure: None required.

Impact UT-3: Implementation of the proposed project would not 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. (*Less than Significant Impact*)

Housing Element Update and Stanford Community Plan

While no specific development proposals are directly identified in the HEU, theoretical development would result in an increase in population and thus an increased demand for wastewater treatment. , while

The County and each jurisdiction where the housing opportunity sites would be located charge sewer connection fees from new construction projects, which result in an added wastewater burden to ensure that new users pay their fair share for facilities and necessary capacity upgrades. There is excess capacity of approximately 65 MGD at the San José-Santa Clara RWF. With the future upgrade to the South County Regional WTP, approximately 4.8 MGD of excess capacity would be available.

Wastewater generated in San José is treated at the San José-Santa Clara RWF, including wastewater from the Burbank Sanitary District and the County Sanitation District No. 2-3, which contract with it. Assuming a design flow of 105 gallons per day per unit, the 4,518 to 6,6,281 units in San José could generate 474,390 to 659,505 gallons of wastewater per day or approximately 0.47 to 0.59 MGD. As a result, the amount of wastewater generated by the housing opportunity sites in San José would not exceed the excess capacity of the wastewater treatment facilities serving the City. In addition, individual project applicants would be required to ensure that adequate treatment capacity is available at the time specific development projects are proposed.

Wastewater generated on the Stanford campus is treated at the Palo Alto RWQCP. The Palo Alto RWQCP has an average dry weather flow capacity of 39 MGD and currently treats an average dry weather flow of approximately 16.4 MGD, While the San José/Santa Clara WPCP has an average dry weather flow capacity of 167 MGD and currently treats an average dry weather flow of about 102 MGD.

Assuming a design flow of 105 gallons per day per unit, the 1,680 to 2,160 units on the Stanford campus could generate 176,400 to 226,800 gallons of wastewater per day or approximately 0.18 to 0.23 MGD. The RWQCP has an average dry weather flow capacity of 39 MGD and an average wet weather flow capacity of 80 MGD and does not currently experience any major treatment system constraints. Of this capacity, an average dry weather flow of up to 2.11 MGD is reserved for the campus. With an average daily flow of 16.4 MGD, the RWQCP is currently operating at 42 percent of its capacity. Furthermore, with a current average daily sewer discharge of 0.82 MGD from the campus, Stanford is utilizing approximately two percent of the plant's total average dry weather flow capacity, and about 39 percent of the average dry weather flow capacity reserved for the campus.

As growth allowed under the 2000 General Use permit has been accounted for under existing campus planning documents and the SCP update would not increase the amount of authorized development on campus, it is expected that the remaining capacity of RWQCP, and the amount of that capacity specifically allocated to Stanford, would be adequate to serve new housing development on the campus. For these reasons, enough wastewater treatment capacity exists to serve the future development of the housing opportunity sites on campus, and the impact of the SCP update on wastewater treatment capacity would be less than significant.

Development under the project would be required to comply with the CALGreen Code, which requires that new construction use high-efficiency plumbing fixtures, such as high-efficiency toilets, urinals, showerheads, and faucet fixtures. Implementation of water conservation and efficiency measures would reduce the wastewater generated. Therefore, the project would not result in wastewater treatment capacity issues, and the impact of the project with respect to wastewater treatment capacity would be **less than significant**.

Mitigation Measures: None required.

Impact UT-4: Implementation of the proposed project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. (*Less than Significant Impact*)

Housing Element Update and Stanford Community Plan Update

While no specific development proposals are directly associated with the project, theoretical development would generate solid waste during both construction and operation. During construction, construction-related debris would be generated. During operation, the additional residential uses would result in an increase in the demand for solid waste services.

Construction

As described in Section 4.16.3, *Regulatory Setting*, development projects are required to achieve 75 percent diversion under the CALGreen Code and create and maintain a construction waste management plan. The diversion requirement may be met through direct facility recycling, reuse of the materials on site, or donation to reuse and salvage businesses. The remaining residue from the materials that could not be recovered would be landfilled. Most construction and demolition debris produced in Santa Clara County is processed at the Zanker Road Resource Recovery Facility in San José before disposal elsewhere. The Zanker Road facility recycles more than 80 percent of the construction and demolition debris that it receives, with even higher rates of recycling for many types of building materials. Residual materials are disposed of at the Newby Island landfill. The Newby Island facility has a permitted capacity of 57.5 million cubic yards and is permitted to accept a maximum of 4,000 tons of solid waste per day. With a remaining disposal capacity of about 16.4 million cubic yards, Newby Island Sanitary landfill is expected to remain in operation until 2041 (CalRecycle, 2022a).

As a result, construction of development projects facilitated by the project are not expected to generate substantial amounts of solid waste during construction relative to the remaining capacity of the Newby Island Sanitary. Therefore, construction associated with development under the project would not generate solid waste in excess of local infrastructure and would not impair the attainment of State-level or local waste reduction goals, and the impact of the project on solid waste during construction would be **less than significant**.

Operation

The HEU could provide for the development of 6,198 to 8,441 new housing units in the County which would generate solid waste. Using the estimated number of new residents to the Stanford campus and in the City of San José (calculated in Section 4.12, *Population and Housing*) and an average disposal rate of 0.27 tons per person per year (City of San José, 2011; Santa Clara County, 2018), these new residential uses would generate up to approximately 18.9 tons of waste per day (6,899 tons per year),[3] which would primarily be disposed of at the Newby Island Landfill. The Newby Island Landfill has approximately 16.4 million cubic yards of remaining capacity (23 million tons) and has an expected closure date of 2041. Conservatively assuming all waste would be disposed at this landfill, the daily solid waste estimates associated with

[3] Solid waste generation = (0.27 tons/person/year X 24,394 persons) = 6,586 tons/year (or 18 tons/day).

development under the project would account for about 0.0045 percent of the permitted daily capacity of the New Island Sanitary Landfill, and as such implementation of the project would not generate substantial or excessive amounts of solid waste during operation relative to the capacity of this facility.

Development facilitated by the project would be required to comply with existing solid waste reduction requirements, including applicable federal, State and local solid waste statutes and regulations during operation. Compliance with existing policies and regulations, including the CALGreen building and State recycling and organic material diversion requirements, would reduce the non-renewable sources of solid waste, and minimize the solid waste disposal requirements of HEU implementation. Therefore, operation of development under the project would not generate solid waste in excess of local infrastructure and would not impair the attainment of State-level or local waste reduction goals, and the impact of the project on solid waste during operation would be **less than significant**.

Mitigation Measures: None required.

Impact UT-5: Implementation of the proposed project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste. (*Less than Significant Impact*)

Housing Element Update and Stanford Community Plan Update

During construction and operation associated with development facilitated by the project, development projects would be required to comply with federal, state, and local solid waste standards identified in Section 3.16.3, *Regulatory Setting*, such as the California Integrated Waste Management Act, AB 939, the CALGreen Code, AB 341 and AB 1826, and SB 1383. Peninsula Sanitary Service, Inc. oversees the collection, transfer, and disposal of residential garbage, recycling, and organics on the Stanford campus while various franchised waste and recycling haulers fulfill these functions in the City of San José. These haulers assist with keeping the County compliant with State-mandated recycling requirements (AB 341 and AB 1826), including recycling of organics. As a result, development under the project would not conflict with applicable waste reduction policies. Further, based on existing disposal rates and continued waste diversion by residents and employees in the County, growth facilitated by the project would continue to be in compliance with CALGreen and AB 939. Therefore, the impact of the project regarding compliance with solid waste regulations would be **less than significant**.

Mitigation Measures: None required.

Cumulative Impacts

This section presents an analysis of the cumulative effects of the project in combination with other past, present, and reasonably foreseeable future projects that could cause cumulatively considerable impacts. Significant cumulative impacts related to utilities and service systems could

occur if the incremental impacts of the project combined with the incremental impacts of one or more of the cumulative projects or cumulative development projections included in the project description and described in Section 4.0.3, *Cumulative Impacts*.

Impact UT-6: The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, would not contribute considerably to cumulative impacts on utilities and service systems. (*Less than Significant Impact*)

Housing Element Update and Stanford Community Plan

The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity would incrementally increase the demand for utilities and service systems. As described in Section 4.0, there are numerous other housing developments proposed to be constructed, or under review approval consideration with the affected jurisdictions.

Water Supply

Cumulative impacts with respect to water service were considered within the geographic context of the SJWC's and the SFPUC's retail and wholesale service area. As stated under Impact UT-2, both the SJWC and Valley Water UWMPs anticipate that sufficient water supply is available to meet normal growth projections through 2024. These normal growth projections would include both the proposed project and cumulative projects.

For Stanford and SFPUC-supplied water, the adoption and potential implementation of the Bay-Delta Plan Amendment establishes a new paradigm of region-wide water supply issues within the geographic context of the SFPUC retail and wholesale service areas. All water suppliers on the San Francisco Bay Peninsula along with every other water supplier that receives surface water through the Bay-Delta are also grappling with these pending water supply challenges imposed under the Bay-Delta Plan Amendment. As previously discussed, development allowed under the project, in combination with cumulative development within the SFPUC retail and wholesale service areas would increase demand for water supply. As discussed above under Impact UT-2, Stanford and other water suppliers on the San Francisco Bay Peninsula would have adequate water supplies during normal or above-normal precipitation (years of normal supply) to meet projected demand through 2040 and 2045.

With respect to single dry and multiple dry years, the reliability of the RWS is anticipated to vary in different year types. All water suppliers on the San Francisco Bay Peninsula have relied on the supply reliability estimates provided by the SFPUC for the RWS and the drought allocation structure provided by SFPUC to estimate available RWS supplies in dry year types through 2045. These projections indicated that *without* the Bay-Delta Plan Amendment being implemented, the SFPUC would be able to supply 100 percent of projected RWS demands in all year types through 2045, except for the 4th and 5th consecutive dry year in 2045, during which 90 percent of projected RWS demands (85 percent of the wholesale demands) would be met. In those years, 4th and 5th dry years, conservation and water demand measures implemented by Stanford and all

other water suppliers San Francisco Bay Peninsula would further reduce demand to meet the water supply shortage.

In single dry and during multiple dry years with implementation of the Bay-Delta Plan Amendment the reliability of the RWS is anticipated to vary greatly and is expected to experience substantial water supply shortages. Water suppliers that currently depend on water conveyed through the Bay-Delta are expected to face supply shortfalls in single dry years (ranging from 27 to 32 percent) and in multiple dry years (ranging from 27 to 44 percent through 2040, with similar findings through 2045 based on SFPUC's analysis. Notably, numerous uncertainties regarding Bay-Delta Plan Amendment implementation remain, and thus this represents a worst-case water supply scenario in which the Bay-Delta Plan Amendment is implemented. Therefore, this worst-case water supply scenario establishes a new paradigm of region-wide potentially significant cumulative impacts within the geographic context of the SFPUC retail and wholesale service areas.

As presented and discussed in detail in Impact UT-2, the regional water suppliers, including SFPUC and other suppliers that rely on the Bay-Delta as a supply source have developed strategies and actions to address the projected dry year supply shortfalls. The regional and local strategies, plans and programs are discussed in Impact UT-2 and further discussed in the WSAs for the proposed project (Appendix C of this EIR).

Because of the numerous agencies involved, various project complexities, schedules, timing, approvals and environmental clearance requirements, the results of the plans, projects, and programs may not overcome the single dry and multiple dry year shortages – at least during early years of the proposed project's timeframe. Therefore, all water suppliers would need to implement their conservation and demand management measures to further reduce water demand to potentially meet the supply reductions. The conservation protocols for each district includes six levels to address shortage conditions ranging from up to 10 percent to greater than 50 percent of demand, identifies a suite of demand reduction measures to implement at each level, and identifies procedures to annually assess whether or not a water shortage is likely to occur in the coming year, among other things. Under the scenario which assumes Bay-Delta Plan Amendment implementation, the projected single dry year and multiple dry year shortfalls would likely require implementation of Stages 3, 4, or 5 of each protocol. All new development on the San Francisco Bay Peninsula would be subject to the same water conservation and water use restrictions.

Development allowed under the proposed project would also be required to comply with the CALGreen Code, which requires that new construction use high-efficiency plumbing fixtures, such as high-efficiency toilets, urinals, showerheads, and faucet fixtures. For outdoor water use, the CALGreen Code requires that irrigation controllers be weather- or soil moisture–based and automatically account for rainfall or be attached to a rainfall sensor. Finally, all new development would be required to adhere to the City's Water Efficient Landscaping Ordinance. These potential savings were not considered in the WSAs, and thus the demand reported above is conservative.

Based on the above, while water supply shortfalls are projected in single dry and multiple dry years with implementation of the Bay-Delta Plan Amendment, these projected shortfalls could be overcome through the SFPUC's various projects, programs, and plans and further addressed through implementation of the conservation and demand management measures. In addition, development under the project would be required to adhere to all applicable regulations that promote water conservation and water use efficiencies. While results of the projects, programs and plans and demand reductions cannot be quantified, it is reasonable to expect that many of the projects, programs and plans would be successful and additional water supplies and demand reductions can be obtained. For these reasons, implementation of the project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal years. In single dry and multiple dry years, conservation and demand management measures by all water suppliers would further reduce demand to meet the water supply shortage. As a result, the cumulative impact of the proposed project update with respect to water supply would be **less than significant**.

Wastewater Treatment

The geographic scope of the cumulative wastewater analysis is the service area of the Palo Alto RWQCP and the San José-Santa Clara RWP. As discussed above under Impact UT-3, each of these facilities has substantial excess capacity. As a result, the cumulative impact of the proposed project update with respect to wastewater would be **less than significant**.

Solid Waste

The geographic scope of the cumulative solid waste analysis is focused on the service areas of the landfills that would serve development facilitated by the project. Countywide, solid waste generated in the unincorporated portion of the county has been disposed of in 21 additional landfills for which capacity is available (CalRecycle 2019). In addition, all past, present, and foreseeable future projects have been and would be required to demonstrate that adequate landfill capacity is available to accommodate increased waste prior to any project approvals. Such projects have been and would also be required to comply with the recycling and reuse measures and targets established by CALGreen and AB 939 for construction and operational waste. As addressed under Impact UT-4, enough excess capacity exists in area landfills to serve growth facilitated by the project during construction and operation. Furthermore, as discussed under Impact PSR-4, growth facilitated by the project would continue to be in compliance with CALGreen and AB 939. For these reasons, the cumulative impact of the project with respect to solid waste would **be less than significant**.

Conclusion

As discussed above, implementation of the proposed project would have less than significant impacts with regard to utilities and service systems. Similar to the project, cumulative development would be subject to capacity fees and other regulations that contribute to long-term utilities planning and capacity improvements. Therefore, when considered in the cumulative context, the project's utilities and service system-related impacts would not be cumulatively considerable, and the cumulative impact of the project with respect to utilities and service systems would be **less than significant**.

Mitigation Measure: None required.

4.16.5 References

California Department of Resources Recycling and Recovery (CalRecycle). 2022a. SWIS Facility/Site Activity Details, Newby Island Sanitary Landfill (43-AN-0003). Available online: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1362?siteID=3388. Accessed: October 5, 2022.

———. 2022b. SWIS Facility/Site Activity Details, John Smith Road Landfill (35-AA-0001). Available online: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/2151?siteID=2583. Accessed: October 5, 2022.

———. 2022c. SWIS Facility/Site Activity Details, Zanker Road Resource Recovery Operation (43-AN-0007). Available online: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1366?siteID=3392. Accessed: October 21, 2022.

———. 2019. Jurisdiction Disposal by Facility, Disposal during 2019 for Santa Clara-Unincorporated. Available online: https://www2.calrecycle.ca.gov/LGCentral/DisposalReporting/Destination/DisposalByFacility. Accessed: October 21, 2022.

City of Palo Alto. 2012. Long Range Facilities Plan for the Regional Water Quality Control Plant. October. Available online: https://www.cityofpaloalto.org/files/assets/public/public-works/water-quality-control-plant/lrfp-final-report-08-2012.pdf. Accessed October 4, 2022.

———. 2017. Comprehensive Plan Update Environmental Impact Report. SCH No. 2014052101. Certified November 13, 2017. Available online: https://www.cityofpaloalto.org/Departments/Planning-Development-Services/Long-Range-Planning/2030-Comprehensive-Plan. Accessed September 28, 2022.

———. 2022. Palo Alto Regional Water Quality Control Plant 2021 Pretreatment Program Annual Report. February 28. Available online: https://cleanbay.org/wp-content/uploads/2022/02/2021-Pretreatment-Program-Annual-Report_revised.pdf. Accessed October 4, 2022.

City of San José. 2011. Envision San José 2040 General Plan. SCH No. 2009072096. Certified November 1, 2011. Available online: https://www.sanjoseca.gov/your-government/departments/planning-building-code-enforcement/planning-division/environmental-planning/environmental-review/completed-eirs/envision-san-jose-2040-general-plan-4-year/envision-san-jos-2040-general-plan. Accessed September 28, 2022.

———. 2020. Tributary Agencies Estimated Available Plant Capacity – 2020. December 18. Available online: https://www.sanjoseca.gov/Home/ShowDocument?id=68283. Accessed October 4, 2022.

County of Santa Clara. 1994. *County of Santa Clara General Plan*. Available online: https://plandev.sccgov.org/ordinances-codes/general-plan. Accessed August 15, 2022.

———. 2000. *Stanford University Community Plan*. Available online: https://stgenpln.blob.core.windows.net/document/SU_CP.pdf. Accessed August 15, 2022.

San Francisco Public Utilities Commission (SFPUC). 2021. 2020 Urban Water Management Plan for the City and County of San Francisco. June. Available online: https://sfpuc.org/sites/default/files/programs/local-water/SFPUC_2020_UWMP2020_%20FINAL.pdf. Access October 6, 2022.

San José Clean Energy. 2022. Frequently Asked Questions. Available online: https://www.sanjosecleanenergy.org/faq. Accessed October 6, 2022.

San José Water Company (SJWC). 2021. San José Water Company 2020 Urban Water Management Plan. June. Available online: https://www.sjwater.com/sites/default/files/2021-06/2020%20UWMP%20FINAL%20with%20Appendices.pdf. Access October 5, 2022

Santa Clara County. 2018. Stanford University 2018 General Use Permit Environmental Draft Impact Report. SCH No. 2017012022. Published June 12, 2018.

Santa Clara Valley Water District (Valley Water). 2021. Santa Clara Valley Water District 2020 Urban Water Management Plan. June. Available online: https://fta.valleywater.org/dl/pggls1SeCr. Accessed October 6, 2022.

———. 2022. Water Treatment Plants. Available online: https://www.valleywater.org/your-water/water-quality/how-we-clean-your-water/water-treatment-plants. Accessed October 6, 2022.

Stanford. 2022a. Groundwater. Available online: https://suwater.stanford.edu/water-supplies/groundwater. Accessed October 7, 2022.

———. 2022b. Recycled Water. Available online: https://suwater.stanford.edu/water-supplies/recycled-water. Accessed October 7, 2022.

———. 2022c.Wastewater at Stanford. Available online: https://suwater.stanford.edu/wastewater. Accessed October 6, 2022.

———. 2022d. Stormwater at Stanford. Available online: https://suwater.stanford.edu/stormwater. Accessed October 6, 2022.

Weiss, Julie. 2022. Personal Communication between Julie Weiss, Watershed Protection Program Manager, City of Palo Alto, Public Works Department, Environmental Services Division, and Paul Stephenson, Senior Project Manager, Environmental Science Associates. October 20, 2022.