3.14 Utilities and Service Systems

This section addresses potential impacts of the proposed project on public utilities and service systems. Section 3.8, *Hydrology and Water Quality*, discusses project impacts related to surface water and stormwater runoff, and Section 3.4, *Energy*, discusses impacts related to electricity and natural gas supply and demand.

This analysis is based on proposed utilities improvements for the project described in the *Google Downtown West Infrastructure Plan*, prepared by Arup, Lendlease, and Sherwood Design Engineers (October 7, 2020). This analysis also considers the *Water Supply Assessment, Downtown West Mixed-Use Project (Google Project)*, prepared by San Jose Water Company (January 2020), which is included as **Appendix H** to this Draft EIR.

The discussion below is organized by topic (water; wastewater; stormwater; other utilities; solid waste) and addresses the environmental setting, regulatory framework, impacts, and mitigation measures relevant to each respective topic. Impacts of the proposed utility corridor ("utilidor"), which is intended to convey multiple utility services, are addressed in Section 3.14.3, Impact UT-1. Refer to Figure 2-10, *Preliminary Utilidor Alignment Options*, for proposed utilidor locations.

Water

3.14.1 Environmental Setting

Water Supply

The project area is served by San Jose Water Company, a privately owned public utility that serves most of the cities of San José and Cupertino; the entire cities of Campbell, Monte Sereno, and Saratoga; the town of Los Gatos; and parts of unincorporated Santa Clara County. San Jose Water Company has three sources of potable water supply: groundwater, imported treated surface water, and local surface water. Recycled water provides a fourth source of water, albeit for non-potable applications. Efforts to develop potable recycled water systems are currently underway in Santa Clara County, indicating that recycled water for potable uses may be possible in the future.

On average, groundwater from the major water-bearing aquifers of the Santa Clara Subbasin compose one-third of San Jose Water Company's potable water supply. San Jose Water Company purchases just over 50 percent of its potable water supply from the Santa Clara Valley Water District (Valley Water), which obtains water from several sources: local reservoirs, the State Water Project, and the Central Valley Project. San Jose Water Company supplies approximately 7 percent of its water from surface water in the local watersheds of the Santa Cruz Mountains.[1]

[1] San Jose Water Company, *2015 Urban Water Management Plan*, Final Report, June 2016. Available at http://wuedata.water.ca.gov/public/uwmp_attachments/5545697867/2015%20UWMP%20with%20Appendices.pdf. Accessed October 23, 2019.

The Santa Clara Subbasin is an un-adjudicated basin; thus, Valley Water, the local groundwater sustainability agency, is responsible for maintaining the basin and ensures that the basin does not become overdrafted.[2] The subbasin is designated as a high-priority subbasin by the California Department of Water Resources based on criteria that include overlying population, projected growth, number of wells, irrigation acreage, groundwater reliance, and groundwater impacts.[3] The subbasin has not been identified as being in overdraft, and Valley Water, in its 2016 Groundwater Management Plan, indicated that long-term average groundwater yields are sustainable.[4]

The Santa Clara Subbasin has an estimated operational storage capacity of approximately 350,000 acre-feet (AF). Typically, San Jose Water Company obtains 35 percent to 40 percent of its water supply from groundwater. However, the percentage can vary.[5] In 2012, the groundwater basin was at a high level and well-prepared for the effects of a multi-year drought because of a decline in pumping, the increased use of imported water, and the recharge of water by Valley Water into the aquifer. Groundwater volume pumped in 2014 as part of San Jose Water Company's supply was 74,552 AF, or 57 percent of the company's supply. In 2015, however, San Jose Water Company pumped 37,888 AF of groundwater, or 36 percent of its supply.[6]

Municipal Water Supply and Infrastructure

San Jose Water Company's distribution system serves the project site. Water mains in adjacent streets vary from 4 inches to 16 inches in diameter. The backbone water lines that serve the project site include 12- to 16-inch water lines in West Santa Clara Street, 6- and 12-inch parallel lines in Delmas Avenue, a 16-inch line in South Autumn Street, and 12- to 12.75-inch lines in Park Avenue. San Jose Water Company operates its own program to replace deteriorated pipes through user rate fees.

Static water pressure near the project site averages between 45 and 65 pounds per square inch. Under existing conditions, the system has capacity to deliver water at a residual pressure of 20 pounds per square inch during maximum-day demand coincident with a fire flow (with fire hydrant[s] open and flowing). Groundwater wells were recently constructed in the surrounding area to augment water pressure during periods of high demand. San Jose Water Company plans to install a new pressure-regulating station, approximately 0.5 miles away from Diridon Station, that will be

[2] San Jose Water Company, *2015 Urban Water Management Plan*, Final Report, June 2016. Available at http://wuedata.water.ca.gov/public/uwmp_attachments/5545697867/2015%20UWMP%20with%20Appendices.pdf. Accessed October 23, 2019.

[3] California Department of Water Resources, *Sustainable Groundwater Management Act 2019 Basin Prioritization Process and Results*, May 2020. Available at https://data.cnra.ca.gov/dataset/13ebd2d3-4e62-4fee-9342-d7c3ef3e0079/resource/ffafd27b-5e7e-4db3-b846-e7b3cb5c614c/download/sgma_bp_process_document.pdf. Accessed May 14, 2020.

[4] Santa Clara Valley Water District, *2016 Groundwater Management Plan Santa Clara and Llagas Subbasins*, November 2016. Available at https://s3.us-west-2.amazonaws.com/assets.valleywater.org/2016%20Groundwater%20Management%20Plan.pdf. Accessed May 14, 2020.

[5] SJW Group, *Source to Tap: 2019 Sustainability Report*, undated. Available at: https://www.sjwater.com/sites/default/files/2019-12/SJW-Sustainability-Report-WEB.pdf. Accessed August 11, 2020.

[6] San Jose Water, *Water Supply Assessment, Downtown West Mixed-Use Project (Google Project)*, January 2020.

capable of moving up to 5.7 million gallons per day (mgd) of water into the project area and is planned for inclusion in San Jose Water Company's 2021 capital improvement project budget.[7]

Recycled water is not currently available on the project site. An off-site recycled water pipeline that terminates at Autumn Parkway north of the Union Pacific Railroad (UPRR) tracks carries recycled water provided by the South Bay Water Recycling Program, a long-term program for the cities of Milpitas, San José, and Santa Clara that was created to bring a reliable, sustainable, and drought-proof supply of non-potable water to the South Bay. This existing line serves both Guadalupe River Park and Columbus Park.[8]

Water System Improvements

Based on existing land uses in the Diridon Station Area, there are no water system capacity issues, nor are any improvements planned by San Jose Water Company described in the *Diridon Station Area Infrastructure Analysis*. In addition, no condition-related improvements to the Diridon Station Area have been identified as being required under existing conditions. The *Diridon Station Area Infrastructure Analysis* identifies backbone water infrastructure elements, including segments running through the project site in Julian Street and Park Avenue, that are recommended for upsizing with development of the Diridon Station Area Plan (DSAP).

The *Diridon Station Area Infrastructure Analysis* also identifies a potential extension of the recycled water infrastructure that would tie into the existing terminus of the recycled water line in Autumn Parkway on the north side of the UPRR tracks. As noted in the analysis, connecting to this pipe would require an agreement with from UPRR for permanent improvements and construction under the railroad tracks by jack-and-bore methods.[9]

The DSAP EIR envisioned construction of this water infrastructure and found that the resulting impacts would be less than significant.[10]

3.14.2 Regulatory Framework

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

7 San Jose Water, *Water Supply Assessment, Downtown West Mixed-Use Project (Google Project),* January 2020.
8 City of San José, *Diridon Station Area Infrastructure Analysis*, January 31, 2017.
9 City of San José, *Diridon Station Area Infrastructure Analysis*, January 31, 2017.
10 City of San José, *Diridon Station Area Plan Draft PEIR,* December 2013.

5 years on or before December 31, in years ending in 5 and 0. San Jose Water Company adopted its 2015 UWMP in June 2016.[11]

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.[12] 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.

Completion of a WSA requires collection of proposed water supply data and information relevant to the project in question, an evaluation of existing/current use, a projection of anticipated demand sufficient to serve the project for a period of at least 20 years, delineation of proposed water supply sources, and an evaluation of water supply sufficiency under single-year and multiple-year drought conditions. San Jose Water Company prepared a WSA for the proposed project, which is included as Appendix H. The conclusions of the WSA are described and analyzed in Impact UT-2 below.

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;
- 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

[11] San Jose Water Company, *2015 Urban Water Management Plan*, Final Report, June 2016. Available at http://wuedata.water.ca.gov/public/uwmp_attachments/5545697867/2015%20UWMP%20with%20Appendices.pdf. Accessed October 23, 2019.

[12] 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.

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, the WSA prepared under SB 610 would meet the requirement for proof of water supply under SB 221.

The WSA for the proposed project was prepared in response to both SB 610 and SB 221.[13]

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. In compliance with AB 325, the City of San José developed a Model Water-Efficient Landscape Ordinance on April 30, 2013 (Ordinance No. 29243), amending its existing water efficient landscape standards (refer to San José Municipal Code Chapter 5.11, discussed below under *Local*).

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

[13] San Jose Water Company, *Water Supply Assessment, Downtown West Mixed-Use Project (Google Project)*, January 2020.

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 Resources Control Board (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.

California Green Building Standards Code

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.

Local

Envision San José 2040 General Plan

The *Envision San José 2040 General Plan* (General Plan) contains the following relevant policies related to water systems:

> **Policy MS-3.1:** Require water-efficient landscaping, which conforms to the State's Model Water Efficient Landscape Ordinance, for all new commercial, institutional, industrial, and developer-installed residential development unless for recreation needs or other area functions.
>
> **Policy MS-3.2:** Promote use of green building technology or techniques that can help reduce the depletion of the City's potable water supply as building codes permit. For example, promote the use of captured rainwater, graywater, or recycled water as the preferred source for non-potable water needs such as irrigation and building cooling, consistent with Building Codes or other regulations.

Policy MS-3.3: Promote the use of drought tolerant plants and landscaping materials for nonresidential and residential uses.

Policy MS-18.4: Retrofit existing development to improve water conservation.

Policy MS-18.5: Reduce per capita water consumption by 25 percent by 2040 from a baseline established using the 2010 Urban Water Management Plans of water retailers in San José.

Policy MS-18.6: Achieve by 2040, 50 million gallons per day of water conservation savings in San José, by reducing water use and increasing water use efficiency.

Policy MS-19.1: Require new development to contribute to the cost-effective expansion of the recycled water system in proportion to the extent that it receives benefit from the development of a fiscally and environmentally sustainable local water supply.

Policy MS-19.3: Expand the use of recycled water to benefit the community and the environment.

Policy MS-19.4: Require the use of recycled water wherever feasible and cost-effective to serve existing and new development.

Policy ER-9.3: Utilize water resources in a manner that does not deplete the supply of surface or groundwater or cause overdrafting of the underground water basin.

Policy IN-1.5: Require new development to provide adequate facilities or pay its fair share of the cost for facilities needed to provide services to accommodate growth without adversely impacting current service levels.

Policy IN-1.5: Ensure that public facilities and infrastructure are designed and constructed to meet ultimate capacity needs to avoid the need for future upsizing. For facilities subject to incremental upsizing, initial design shall include adequate land area and any other elements not easily expanded in the future. Infrastructure and facility planning should discourage over-sizing of infrastructure which could contribute to growth beyond what was anticipated in the 2040 General Plan.

Policy IN-1.7: Implement financing strategies, including assessment of fees and establishment of financing mechanisms, to construct and maintain needed infrastructure that maintains established service levels and mitigates development impacts to these systems (e.g., pay capital costs associated with existing infrastructure that has inadequate capacity to serve new development and contribute toward operations and maintenance costs for upgraded infrastructure facilities).

Policy IN-3.3: Meet the water supply, sanitary sewer and storm drainage level of service objectives through an orderly process of ensuring that, before development occurs, there is adequate capacity. Coordinate with water and sewer providers to prioritize service needs for approved affordable housing projects.

Urban Environmental Accords

On November 1, 2005, the San José City Council signed on to the Urban Environmental Accords, a declaration of participating city governments to build ecologically sustainable, economically dynamic, and socially equitable futures for their urban citizens. The Urban Environmental Accords include 21 actions in seven different areas, such as energy, waste, and urban nature. The actions that relate to utilities and service systems are:

- Develop policies to increase adequate access to safe drinking water, aiming at access for all by 2015. For cities with potable water consumption greater than 100 liters per capita per day, adopt and implement policies to reduce consumption by 10 percent by 2015.
- Protect the ecological integrity of the City's primary drinking water sources (i.e., aquifers, rivers, lakes, wetlands and associated ecosystems).

The City Council approved a Water Conservation Plan on September 23, 2008, to support achievement of the Urban Environmental Accord actions above.[14]

San José Water Conservation Programs

The City's water conservation programs are intended to meet future water needs and minimize flows to the sanitary sewer and sewage treatment systems. The program includes the following elements related to water:

- Limited landscape watering hours
- Restrictions on the use of potable water for construction purposes
- Ultra-low-flow toilet incentives
- A shower head retrofit program
- Landscape ordinances for non-residential new construction
- Commercial/industrial water audits
- Financial incentives for commercial/industrial conservation
- Water use prohibitions

San José Municipal Code

Chapter 15.11 (Water Efficient Landscape Standards for New and Rehabilitated Landscaping) of the San José Municipal Code is intended to promote the conservation and efficient use of water, and to prevent the waste of this valuable resource by regulating landscape design, installation, and maintenance consistent with AB 325. New construction projects with a total landscape area equal to or greater than 500 square feet are subject to the requirements of Chapter 5.11, including landscape and irrigation design specifications.

[14] City of San José, *Green Vision 2012 Annual Report*. Available at https://www.sanjoseca.gov/Home/ShowDocument?id=658. Accessed January 31, 2020.

3.14.3 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this EIR, a utilities and service systems impact related to water would be significant if implementing the proposed project would:

- Require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects; or
- Have insufficient water supplies to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.

Approach to Analysis

This analysis identifies the potential impacts of construction and operation of the proposed project as they relate to water use and facilities. Information about proposed infrastructure used throughout the analysis is sourced from the *Google Downtown West Infrastructure Plan*, prepared by Arup, Lendlease, and Sherwood Design Engineers (October 7, 2020). In addition, prior analyses completed for the DSAP, including the *Diridon Station Area Infrastructure Analysis*, were consulted regarding planned improvements in the project area.

This section also addresses impacts of the proposed utilidor, because the utilidor would facilitate the provision of utilities (including recycled water) for the project. The utilidor would affect multiple utility system types; however, to avoid repetition, a single detailed analysis is presented below under Impact UT-1. That analysis is referenced in the subsequent analyses of all affected utility types.

The project is maintaining two alternatives for recycled water servicing:

1. Installation of a private recycled water distribution network to facilitate operations of the district water reuse facility(s), which would collect wastewater from the project for treatment, and produce recycled water for non-potable uses, such as toilet flushing, irrigation, and cooling; or
2. Connection to the existing recycled water network and extension to individual buildings and systems within the project site.

Each of these options is analyzed below. Project impacts to existing water mains are based on a preliminary block-specific fire flow analysis.[15]

[15] Arup, Lendlease & Sherwood Design Engineers. *Google Downtown West Infrastructure Plan*, October 7, 2020.

Impact Analysis—Water

Impact UT-1: The proposed project would not require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects. *(Less than Significant with Mitigation)*

The proposed project would connect to the San Jose Water Company system (as described previously in Section 3.14.1, *Environmental Setting*) at each building to serve domestic and fire water needs. Approximately 5,810 linear feet of new water mains within new proposed project streets outside of the proposed utilidor would be needed to serve both building demands and fire hydrants. Proposed new water mains include new 10- and 12-inch lines in the proposed L-shaped street linking Royal Avenue and Auzerais Street, a new 6-inch line in Lorraine Avenue, new 8- and 10-inch lines in Cahill Street, a new 10-inch line in a proposed private service street in the D-Blocks, a new 8-inch line in West San Fernando Street and the proposed E-Blocks Loop, a new 10-inch line in West Saint John Street, and a new 10-inch line in the proposed rerouted Cinnabar Street and Chestnut Street. Some upgrades to existing water lines would also be required to accommodate the increased demand, including line size upgrades and the installation of additional fire hydrants. Approximately 2,025 linear feet of existing water lines would require upgrades to serve the proposed project with adequate fire flows. Upgrades include upsizing existing 4-inch water lines in West San Carlos Street and West San Fernando Street to 8 inches, as well as upsizing an existing 5-inch water line in South Montgomery Street to 8 inches. Segments of existing water lines would be removed in portions of South Montgomery Street, Delmas Avenue, Cinnabar Street, and North Montgomery Street, aligning with the removal or realignment of these streets. Removal would be completed by the San Jose Water Company and may require the lines to either be demolished or abandoned in place. The removal of these existing water line segments would be phased with the construction of new water lines to ensure no service interruptions.[16] Water line improvements would occur mainly on the project site, with connections and upgrades off-site within public rights-of-way, and would generate no further impacts beyond those identified in this draft EIR for the proposed project.

In addition, the DSAP EIR envisioned the construction of upsized water infrastructure in the project area, some of which may overlap with the proposed project improvements. The DSAP EIR found that the impacts of such improvements would be less than significant.[17]

The proposed project includes infrastructure to support the delivery of non-potable water to the project site. The project includes an option to obtain recycled water from district water reuse facility(s) (described in the *Wastewater* section, below) and distribute the water to project development blocks through a private distribution system. The non-potable water pipe would be routed through the proposed utilidor and would connect to all proposed buildings to provide non-potable water for plumbing and irrigation. The construction of recycled water infrastructure is assumed as part of the proposed utilidor. Potable water supplied by San Jose Water Company would be used as a backup supply to the recycled water system in the event of a temporary failure of the on-site recycled water system. Due to the phasing of the project, potable water would also

[16] Arup, Lendlease & Sherwood Design Engineers. *Google Downtown West Infrastructure Plan*, October 7, 2020.
[17] City of San José, *Diridon Station Area Plan Draft PEIR*, December 2013.

be used as a supply for non-potable uses until the water reuse facility(s) are constructed and brought online.

The utilidor may include direct-bury utility trenches or an underground tunnel structure. Chapter 2, Figure 2-9, presents the proposed alignment for the utilidor. The utilidor would include crossings of existing streets, railroad tracks, and Los Gatos Creek. The utilidor would cross the creek by one or more of the three following options: on the replacement bridge at West San Fernando Street that is proposed as part of the project, on the new footbridge that would be built across Los Gatos Creek as part of the project, and/or by jack-and-bore construction method to cross underneath the creek, or a combination of these options. Elsewhere, the utilidor would be constructed as a combination of direct-bury utility trenches, utilities within basement parking areas, or underground tunnel structures. Where crossing existing rights-of-way, the proposed utilidor would be constructed using jack-and-bore methods, where feasible, to cross underneath all existing utilities within the rights-of-way without disturbing them or requiring street closures. The physical environmental impacts of the utilidor relative to crossing existing rights-of-way and the Los Gatos Creek crossing are evaluated in Section 3.1, *Air Quality*; Section 3.2, *Biological Resources*; Section 3.3, *Cultural Resources and Tribal Cultural Resources*; Section 3.5, *Geology, Soils, and Paleontological Resources*; Section 3.7, *Hazards and Hazardous Materials*; Section 3.8, *Hydrology and Water Quality*; and Section 3.10, *Noise and Vibration*. District utility infrastructure, including water reuse facility(s), are also proposed in two locations—a southern zone and a northern zone—as illustrated in Chapter 2, Figure 2-9.

To the extent that construction of the utilidor (and associated recycled water infrastructure) could result in significant adverse environmental effects, construction-related impacts of the project, including the utilidor, are analyzed throughout this EIR. To reduce these impacts (including impacts of utility infrastructure) to the extent feasible, the project would implement City of San José Standard Conditions of Approval (SCAs) (including those described in Section 3.2, *Biological Resources*, and Section 3.8, *Hydrology and Water Quality*) and the mitigation measures in Section 3.1, *Air Quality*; Section 3.2, *Biological Resources*; Section 3.3, *Cultural Resources and Tribal Cultural Resources*; Section 3.5, *Geology, Soils, and Paleontological Resources*; Section 3.7, *Hazards and Hazardous Materials*; Section 3.8, *Hydrology and Water Quality*; and Section 3.10, *Noise and Vibration*. Mitigation measures would be implemented to reduce impacts of ground-disturbing construction activities, including construction within the proposed utilidor, to the extent feasible.

Should the proposed project not include district water reuse facility(s), recycled water could be delivered through an extension of the existing recycled water pipeline off site. The DSAP EIR envisioned construction of expanded recycled water infrastructure in the project area and found impacts related to its construction to be less than significant. Independent of the analysis previously performed for this envisioned extension under the proposed project the potential extension of recycled water infrastructure to serve the project site would be installed primarily in existing roadways and utility rights-of-way.[18] This infrastructure is not expected to affect sensitive habitat

[18] According to the *Draft Downtown West Infrastructure Plan* (August 2020), options for connecting to the existing system include connecting at Coleman Avenue, Autumn Parkway, and/or West Hedding Street. In addition to these connection(s) to the north of the project site, a loop system could also be considered between the Downtown pipeline terminating at South Fourth Street and East San Fernando Street, and the north connection point to improve reliability.

areas, and aside from short-term construction disturbance, it would generate no further environmental impacts beyond those identified in this draft EIR for overall construction activity for the proposed project with incorporation of the mitigation measures outlined below.

For all of the reasons described above, with implementation of the mitigation measures listed in this impact discussion, project impacts related to new or relocated water infrastructure would be **less than significant with mitigation incorporated**.

Mitigation Measures

The following mitigation measures apply to construction of the proposed utilidor.

Refer to Section 3.1, *Air Quality*, for the following mitigation measures:

Mitigation Measure AQ-2a: Construction Emissions Minimization Plan

Mitigation Measure AQ-2b: Construction Equipment Maintenance and Tuning

Mitigation Measure AQ-2c: Heavy-Duty Truck Model Year Requirement

Refer to Section 3.2, *Biological Resources*, for the following mitigation measures:

Mitigation Measure BI-1a: General Avoidance and Protection Measures

Mitigation Measure BI-1b: In-Water Construction Schedule

Mitigation Measure BI-1c: Native Fish Capture and Relocation

Mitigation Measure BI-1d: Western Pond Turtle Protection Measures

Mitigation Measure BI-1e: Avoidance of Impacts on Nesting Birds

Mitigation Measure BI-1f: Roosting Bat Surveys

Mitigation Measure BI-2a: Avoidance of Impacts on Riparian Habitat

Mitigation Measure BI-2b: Frac-Out Contingency Plan

Mitigation Measure BI-2d: Avoidance and Protection of Creeping Wild Rye Habitat

Mitigation Measure BI-3: Avoidance of Impacts on Wetlands and Waters

Refer to Section 3.3, *Cultural Resources and Tribal Cultural Resources*, for the following mitigation measures:

Mitigation Measure CU-8a: Cultural Resources Awareness Training

Mitigation Measure CU-8b: Archaeological Testing Plan

Mitigation Measure CU-8c: Archaeological Evaluation

Mitigation Measure CU-8d: Archaeological Resources Treatment Plan

Refer to Section 3.5, *Geology, Soils, and Paleontological Resources*, for the following mitigation measures:

Mitigation Measure GE-5a: Project Paleontologist

Mitigation Measure GE-5b: Worker Training

Mitigation Measure GE-5c: Paleontological Monitoring

Mitigation Measure GE-5d: Significant Fossil Treatment

Refer to Section 3.7, *Hazards and Hazardous Materials*, for the following mitigation measures:

Mitigation Measure HA-3a: Land Use Limitations

Mitigation Measure HA-3b: Health and Safety Plan

Mitigation Measure HA-3c: Site Management Plan

Mitigation Measure HA-3d: Vapor Mitigation

Refer to Section 3.8, *Hydrology and Water Quality*, for the following mitigation measure:

Mitigation Measure HY-1: Water Quality Best Management Practices during Construction Activities in and near Waterways

Mitigation Measure HY-3a: Flood Risk Analysis and Modeling

Refer to Section 3.10, *Noise and Vibration*, for the following mitigation measures:

Mitigation Measure NO-1c: Master Construction Noise Reduction Plan

Mitigation Measure NO-2a: Master Construction Vibration Avoidance and Reduction Plan

Mitigation Measure NO-2b: Master Construction Vibration Avoidance from Compaction

Significance after Mitigation: Less than significant. Although the proposed project as a whole would result in significant and unavoidable construction-related air quality and noise impacts, construction work involving utilities is included in the overall construction analysis. The utility construction work would be responsible for a relatively small portion of these project impacts. Therefore, for construction related to utilities, the impact would be less than significant with mitigation incorporated.

Impact UT-2: 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)*

Construction

Construction activities would involve the use of non-potable water for dust suppression when available using water tank trucks, when required and on an intermittent basis. Potable water for construction workers would be provided by the construction contractors, as needed based on the number of construction workers each day. The small increase in potable water demand during construction would not be substantial. Existing water use on the project site is approximately

33,690 gallons per day (gpd).[19] Because existing uses are taken off-line during construction, some of the demand for water needed for construction activities would be offset. In addition, this water use would be temporary, terminating with the completion of construction. Water supplies for the project site are provided by San Jose Water Company, and are planned such that short-term spikes in water use can be accommodated. Therefore, impacts related to water supply during construction would be **less than significant**.

Mitigation: None required.

Operation

The proposed project would result in an increase in population on the project site and thus an increased demand for potable water. The project would use water provided by San Jose Water Company, which has multiple sources of water, as discussed in Section 3.14.1, *Environmental Setting*, including groundwater from the Santa Clara Valley Subbasin; imported local and surface water from Valley Water; local surface water from Los Gatos Creek, Saratoga Creek, and local watersheds; and recycled water from South Bay Water Recycling. Per the requirements of SB 610 and SB 221, a WSA was prepared for the proposed project by San Jose Water Company.[20]

Total estimated water usage for the proposed project at buildout is approximately 2,971,100 gpd, which is equivalent to approximately 3,328 AFY of water.[21] Existing water use on the project site is approximately 33,690 gpd or approximately 38 AFY, and would be eliminated.[22] Thus, the net demand increase in water usage associated with the proposed project would be approximately 2,937,410 gpd or 3,290 AFY. The net increase in demand for water during project operation represents an approximate 2.2 percent increase over the systemwide pre-drought 2013 water production of 146,776 AFY, and approximately 2.0 percent of the projected demand in the San Jose Water Company service area in 2040. The increased demand associated with the proposed project is also consistent with San Jose Water Company's 2015 UWMP, which projected a 12.3 percent increase in total system demand between actual 2013 demand and projected 2040 demand. Therefore, project-related demand is within the 2040 demand projections.

The WSA assumed all water demands for the project would be met with potable water, thus demonstrating that the full water demand for the project could be met by the San Jose Water Company without the use of recycled water.[23] San Jose Water Company would be able to meet the needs of its service area as a whole through 2040 for average years, and through 2035 for single dry years, without a call for water use reductions. In 2040, water use reductions would be required to

[19] San Jose Water Company, *Water Supply Assessment, Downtown West Mixed-Use Project (Google Project)*, January 2020.
[20] San Jose Water Company, *Water Supply Assessment, Downtown West Mixed-Use Project (Google Project)*, January 2020.
[21] This EIR conservatively uses the WSA (January 2020) demand factors to estimate proposed project water demand.
[22] The project applicant may retain about 62,000 square feet of existing small-scale industrial structures on and near South Autumn Street. However, those structures would be repurposed with new uses as part of the proposed project. Therefore, the existing water demand was considered eliminated and the forecasted water demand at buildout for that retained space was considered new water demand.
[23] San Jose Water Company, *Water Supply Assessment, Downtown West Mixed-Use Project (Google Project)*, January 2020.

meet projected demand during single dry years.[24] San Jose Water Company has filed water-waste tariff provisions with the California Public Utilities Commission promoting conservation that would go into effect during a drought. When a low-level water shortage prompts a call for voluntary conservation by customers, a list of water-waste provisions goes into effect. Provisions include limits on watering the landscape and using potable water for landscape after rainfall; obligations to fix leaks; and limits on washing vehicles, serving water in eating and drinking establishments, and using water in fountains or other decorative water devices. For high-level water shortages when mandatory conservation measures are deemed necessary, water-waste provisions limit watering days, the use of potable water for watering streets with trucks or for construction purposes, and filling of ornamental lakes or ponds.[25] As a result of these provisions, it is assumed by San Jose Water Company that conservation-related reduced demand would equal available water supplies. During multiple-dry-year droughts, voluntary and mandatory conservation would be required to meet demand. Valley Water is working with multiple water agencies to investigate regional opportunities for collaboration to enhance water supply reliability, leverage existing infrastructure investments, facilitate water transfers during critical shortages, and improve climate change resiliency. Projects under consideration include interagency pipelines, treatment plant improvements and expansion, groundwater management and recharge, potable reuse, desalination, and water transfers, which may result in the addition of future supplies for Valley Water.[26] To date, Valley Water has not identified any projects or funding assistance to the City of San José, or South Bay Water Recycling, that would result in additional recycled water to support this project.

San Jose Water Company projects that 37 percent of its supply from 2020 to 2040 will be from groundwater. Groundwater supplies are often a reliable supply during normal and short-term drought conditions because they are local and their large storage retains available supply when surface flows become limited. However, some threats to groundwater supply reliability include overdraft under extended supply pressures, which can also cause subsidence; climate change, which could increase the potential for overdraft by increasing demand, reducing other sources of supply, and reducing natural recharge and inflows from surface water and precipitation; and population growth, which could increase demands on groundwater supplies, potentially creating risk of overdraft. As groundwater is pumped by San Jose Water Company and other retailers and municipalities in Santa Clara County, Valley Water influences groundwater pumping reductions, and thus reliability, through financial and management practices to protect groundwater storage and minimize the risk of land subsidence.

San Jose Water Company has identified multiple sources of water for the proposed project, which would provide a high-quality, diverse, and redundant source of supply. San Jose Water Company

[24] San Jose Water Company, *Water Supply Assessment, Downtown West Mixed-Use Project (Google Project)*, January 2020.

[25] San Jose Water Company, Schedule No.14.1: Water Shortage Contingency Plan with Staged Mandatory Reductions and Drought Surcharges, June 9, 2015. Available at https://www.sjwater.com/sites/default/files/2018-03/Schedule%2014.1%20Feb%202017.pdf. Accessed May 14, 2020.

[26] San Jose Water Company, *Water Supply Assessment, Downtown West Mixed-Use Project (Google Project)*, January 2020.

would continue to work with Valley Water to ensure that the water supply for the proposed project is reliable, while the impact on the existing Santa Clara Valley Subbasin is minimal.[27]

San Jose Water Company can also use less groundwater in certain areas or zones to achieve the overall balance that best meets the operational goals of Valley Water and San Jose Water Company.

Water supplies presented in the WSA are based on Valley Water's water evaluation and planning system model. The model simulates Valley Water's water supply system, which consists of facilities to recharge Santa Clara County's groundwater basins, and of local water systems including the operation of reservoirs and creeks, treatment and distribution facilities, and raw-water conveyance systems. The WSA shows that San Jose Water Company's current groundwater supply is sufficient to meet future 2040 maximum-day demands within the entire system, and that San Jose Water Company has excess system capacity.[28]

The WSA determined that the additional demand for water introduced by the proposed project is within previously determined growth projections for water demand in San Jose Water Company's system, and would not adversely affect the company's ability to meet total system demand. The proposed project is also located in one of San Jose Water Company's largest pressure zones and there are many water supply lines. San Jose Water Company has indicated that it has the capacity to serve the proposed project through buildout based on its current water supply capacity and Valley Water's proposed water supply projects. Valley Water is pursuing water supply solutions to ensure that no more than 20 percent conservation will be required during any future drought, and San Jose Water Company is committed to working with Valley Water to meet future demand and mitigate future shortages. After comparing the estimated increase in total system demand for water supplies associated with the proposed project, based on both the San Jose Water Company and Valley Water UWMPs, San Jose Water Company has determined that the quantity of water needed for the proposed project is within its projections of normal growth, and sufficient water is available to serve the proposed project.[29]

The proposed 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. 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. In addition, as described under Impact UT-1 above, the proposed project includes infrastructure to support the delivery of non-potable water to the project site. The project would include an option to obtain recycled water from on-site district water reuse facility(s) (described in the *Wastewater* section, below) and distribute the water to project development blocks through a private distribution system, or recycled water could be delivered through an extension of the existing recycled water pipeline off site. The district recycled water system would have the capacity to serve the project applicant's blocks and the rights-of-way and

[27] San Jose Water Company, *Water Supply Assessment, Downtown West Mixed-Use Project (Google Project)*, January 2020.
[28] San Jose Water Company, *Water Supply Assessment, Downtown West Mixed-Use Project (Google Project)*, January 2020.
[29] San Jose Water Company, *Water Supply Assessment, Downtown West Mixed-Use Project (Google Project)*, January 2020.

public parks within the DSAP area. Implementation of water conservation and efficiency measures and use of recycled water would minimize the potable water demand generated by the proposed project.

Overall, because projected water supplies would be sufficient to satisfy the demands of the project, in addition to existing and planned future uses during normal, single dry, and multiple dry years (as confirmed in San Jose Water Company's WSA)[30] and the proposed project would minimize its water demand through conservation measures and use of recycled water, the proposed project's impact related to water supply would be **less than significant**.

Mitigation: None required.

Cumulative Impacts—Water

The cumulative geographic context for water systems considers the service areas of the local utility providers. This analysis considers development under the City's General Plan for water infrastructure and future projections by San Jose Water Company (which includes projections for Valley Water's supply system) contained within the WSA prepared for the proposed project for water supply.

Impact C-UT-1: 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 water utility systems or water supply. *(Less than Significant)*

Water Infrastructure

The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, could result in the construction of new or expanded water facilities as a result of increased demands for service. The 2040 General Plan EIR and Downtown Strategy 2040 EIR concluded that planned growth would not result in a significant impact associated with the construction of additional water infrastructure, with implementation of existing programs, regulations, and General Plan policies.[31,32]

Development of the proposed project may exceed the growth anticipated for the Downtown area in the General Plan and the Downtown Strategy 2040 (refer to Section 3.11, *Population and Housing*). In addition, the proposed amendments to the DSAP would increase density beyond what was previously considered for the plan area. The increase in density could result in the need for additional infrastructure improvements in the Downtown area. While the proposed project would exceed prior growth projections in the Downtown area, as discussed under Impact UT-1, the proposed project includes a suite of water infrastructure improvements to fully address potable water supply demands for the project site, the construction of which would not result in

[30] Given that the WSA assumes all water used on the site would be potable, non-potable water is not necessary to ensure a sufficient a water supply for the proposed project.
[31] City of San José, *Envision San José 2040 General Plan Draft Program EIR*, June 2011.
[32] City of San José, *Downtown Strategy 2040 Integrated Final EIR*, December 2018.

significant impacts. Therefore, the proposed project would not contribute considerably to a significant cumulative impact in this regard, and impacts would be **less than significant**.

Water Supply

The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, would result in additional demand for potable water. As discussed under Impact UT-2, after comparing the estimated increase in total system demand associated with the proposed project to water supplies, based on both the San Jose Water Company and Valley Water UWMPs, San Jose Water Company determined that the quantity of water needed for the proposed project is within its projections of normal growth and sufficient water is available to serve the proposed project together with cumulative projects.[33] Therefore, the cumulative impact would be less than significant, and the proposed project would not contribute considerably to a significant cumulative impact in this regard. Impacts would be **less than significant**.

Mitigation: None required.

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[33] San Jose Water, *Water Supply Assessment, Downtown West Mixed-Use Project (Google Project)*, January 2020.

Wastewater

3.14.4 Environmental Setting

Wastewater Collection and Treatment

The San José–Santa Clara Regional Wastewater Facility (SJ-SC RWF) serves the City of San José, along with seven other cities and four sanitation districts. The SJ-SC RWF treats an average of 110 mgd of wastewater, with a capacity of up to 167 mgd.[34] In 2019, the City's share of the SJ-SC RWF's treatment capacity was 106.0 mgd, and the City has approximately 36.2 mgd of excess treatment capacity within its share.[35] A Plant Master Plan for the SJ-SC RWF, adopted in 2013, identified more than 100 capital improvement projects to be implemented at the SJ-SC RWF over a 30-year period.[36]

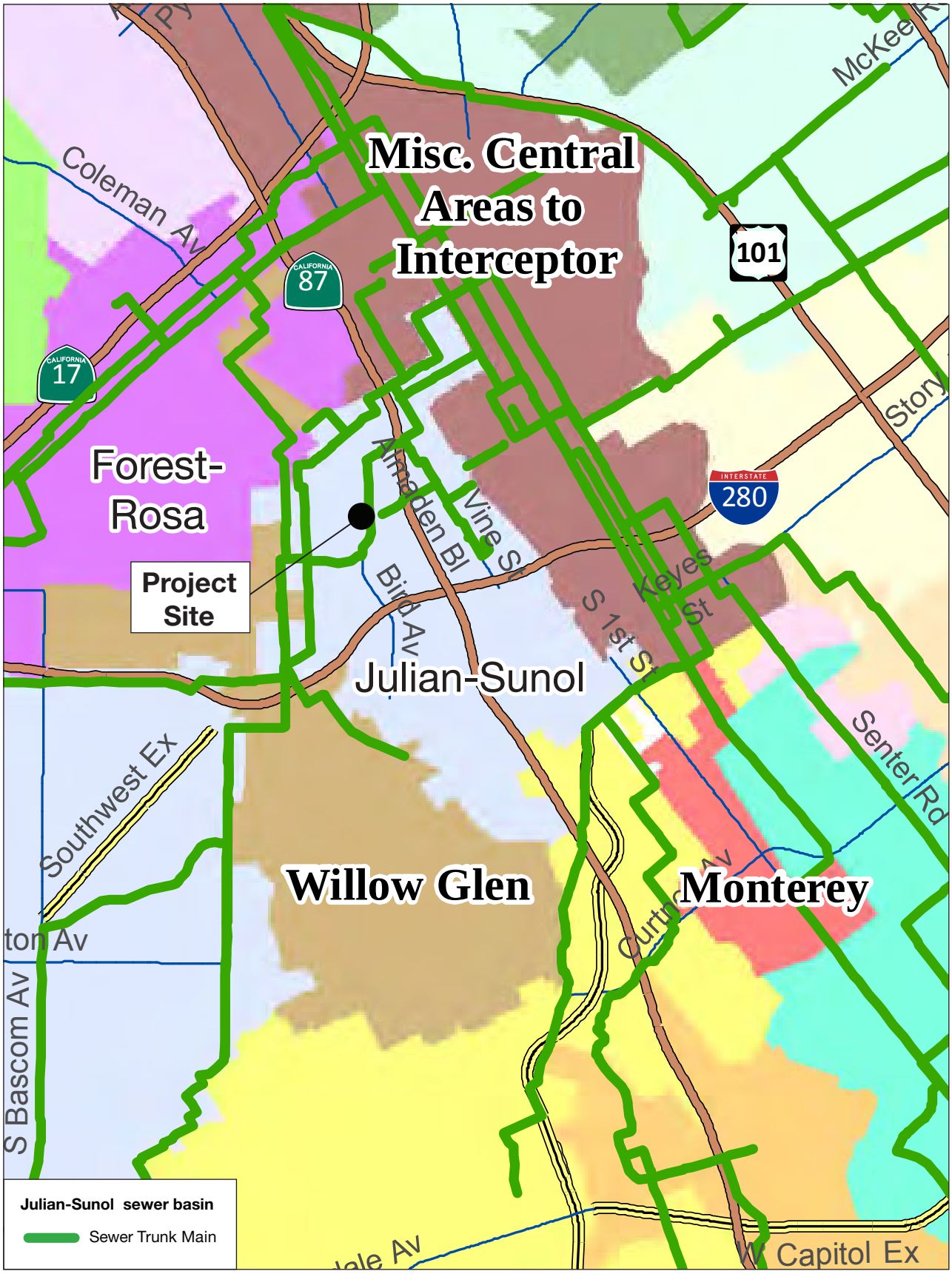
The project site is served by the City's existing sanitary sewer network, with more than 2,000 miles of sanitary sewer pipeline 6–90 inches in diameter flowing north to the SJ-SC RWF.[37] Three sewer basins, or sewersheds, currently serve the project site and the greater Diridon Station Area.[38] Most of the project site is within the Julian-Sunol Sewershed, while portions of the northern part of the site are within the Forest-Rosa and Willow Glen sewersheds (the latter basin is mostly south of the site). Existing sewer basins and trunk mains are illustrated on **Figure 3.14-1**.

Five sanitary sewer siphons in the vicinity of the project site transfer wastewater from the west side to the east side of the Guadalupe River and Los Gatos Creek by gravity, and carry wastewater from the site to the SJ-SC RWF.[39] Concern about adding flow to siphons is usually related to the unknown condition of the siphons; siphons can be partially plugged due to debris, or the condition of the pipes could have deteriorated for other reasons.

Wastewater System Improvements

The *Diridon Station Area Infrastructure Analysis* identified backbone sanitary-sewer infrastructure elements, including segments running through the project site in Autumn and Julian Streets, that would need to be replaced based on operational deficiencies as a result of development of the DSAP.[40] The DSAP EIR envisioned construction of this sanitary sewer infrastructure, finding that the resulting impacts would be less than significant.[41]

[34] City of San José, *City of San José Annual Report on City Services 2017–18*, December 2018. Available at https://www.sanjoseca.gov/Home/ShowDocument?id=38849. Accessed October 3, 2019.
[35] San Jose's 2019 RWF capacities provided by City Environmental Services Department staff.
[36] San José/Santa Clara Water Pollution Control Plant, *The Plant Master Plan*, November 2013. Available at https://www.sanjoseca.gov/home/showdocument?id=206. Accessed October 23, 2019.
[37] City of San José, *Diridon Station Area Infrastructure Analysis*, January 31, 2017.
[38] Arup, Lendlease & Sherwood Design Engineers. *Google Downtown West Infrastructure Plan*, October 7, 2020
[39] Arup, Lendlease & Sherwood Design Engineers. *Google Downtown West Infrastructure Plan*, October 7, 2020
[40] City of San José, *Diridon Station Area Infrastructure Analysis*, January 31, 2017.
[41] City of San José, *Diridon Station Area Plan Draft PEIR*, December 2013.



SOURCE: City of San Jose

Downtown West Mixed-Use Plan

Figure 3.14-1
Project Area Sewer Basins and Trunk Mains

The City is in the process of upgrading the Fourth Major Interceptor, one of four large diameter sanitary sewers running in parallel streets from 7th and Empire streets to the SJ-SC RWF, under their Sanitary Sewer Capital Improvement Program (CIP). The Diridon Station Area Infrastructure Analysis did not consider the downstream capacity of the interceptor sewers a constraint. However, upgrades to the interceptor sewers are documented in the 2013 *Sanitary Sewer Master Plan Capacity Assessment: Phase II and Update of Phase I*. There are seven segments, or phases, of the interceptor sewer. The Phase VI upgrades are under construction and the design work for the Phase VII upgrades is expected to commence towards the end of 2021. The Phase VII upgrades were identified in an August 1986 report titled, "Preliminary Design Report for a Fourth Major Interceptor." As described in the *2020–2024 Proposed Capital Improvement Program*, "[c]ompletion of the Phase VIIA Project will conclude capacity improvements for the Fourth Major Interceptor system between the intersections of North 5th Street and Commercial Street, and North 7th Street and Empire Street."[42]

3.14.5 Regulatory Framework

Federal and state laws regarding wastewater focus primarily on the regulation of pollutant discharges that could contaminate surface waters or groundwater. As such, the federal Clean Water Act and National Pollutant Discharge Elimination System (NPDES), as well as the state Porter-Cologne Water Quality Control Act (Porter-Cologne Act), regulate wastewater treatment and the discharge of treated effluent. (Refer to Section 3.8, *Hydrology and Water Quality*, Section 3.8.2, *Regulatory Setting*, for additional requirements.)

Federal

National Pollutant Discharge Elimination System

The NPDES is a nationwide program for 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).

Part 503: Standards for the Use or Disposal of Sewage Sludge

Code of Federal Regulations Title 40, Part 503, *Standards for the Use or Disposal of Sewage Sludge*, establishes general requirements, pollutant limits, management practices, and operational standards for the final use or disposal of sewage sludge generated during the treatment of domestic sewage in a treatment works. Standards are included for sewage sludge applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator. Also included are requirements to reduce the attraction of pathogens and alternative vectors to sewage sludge applied to the land or placed on a surface disposal site.

[42] Arup, Lendlease & Sherwood Design Engineers. *Google Downtown West Infrastructure Plan*, October 7, 2020

In addition, the standards include requirements governing the frequency of monitoring and recordkeeping when sewage sludge is applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator. This rule applies to any person who prepares sewage sludge, applies sewage sludge to the land, or fires sewage sludge in a sewage sludge incinerator; to the owner/operator of a surface disposal site; and to the exit gas from a sewage sludge incinerator stack.

State

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 3.14.5, *Regulatory Framework*; Section 3.8, *Hydrology and Water Quality*, Section 3.8.2, *Regulatory Setting*; and *Permitting of Proposed Water Reuse Facility(s)*, below.

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.

Local

Envision San José 2040 General Plan

The General Plan contains the following relevant policies related to wastewater systems:

> **Policy IN-1.5:** Require new development to provide adequate facilities or pay its fair share of the cost for facilities needed to provide services to accommodate growth without adversely impacting current service levels.
>
> **Policy IN-1.5:** Ensure that public facilities and infrastructure are designed and constructed to meet ultimate capacity needs to avoid the need for future upsizing. For facilities subject to incremental upsizing, initial design shall include adequate land area and any other elements not easily expanded in the future. Infrastructure and facility planning should discourage over-sizing of infrastructure which could contribute to growth beyond what was anticipated in the 2040 General Plan.
>
> **Policy IN-1.7:** Implement financing strategies, including assessment of fees and establishment of financing mechanisms, to construct and maintain needed infrastructure that

maintains established service levels and mitigates development impacts to these systems (e.g., pay capital costs associated with existing infrastructure that has inadequate capacity to serve new development and contribute toward operations and maintenance costs for upgraded infrastructure facilities).

Policy IN-3.1: Achieve minimum level of services:

- For sanitary sewers, achieve a minimum level of service "D" or better as described in the Sanitary Sewer Level of Service Policy and determined based on the guidelines provided in the Sewer Capacity Impact Analysis (SCIA) Guidelines.
- For storm drainage, to minimize flooding on public streets and to minimize the potential for property damage from stormwater, implement a 10-year return storm design standard throughout the City, and in compliance with all local, State and Federal regulatory requirements.

Policy IN-3.3: Meet the water supply, sanitary sewer and storm drainage level of service objectives through an orderly process of ensuring that, before development occurs, there is adequate capacity. Coordinate with water and sewer providers to prioritize service needs for approved affordable housing projects.

Policy IN-3.4: Maintain and implement the City's Sanitary Sewer Level of Service Policy and Sewer Capacity Impact Analysis (SCIA) Guidelines to:

- Prevent sanitary sewer overflows (SSOs) due to inadequate capacity so as to ensure that the City complies with all applicable requirements of the Federal Clean Water Act and State Water Board's General Waste Discharge Requirements for Sanitary Sewer Systems and National Pollutant Discharge Elimination System permit. SSOs may pollute surface or ground waters, threaten public health, adversely affect aquatic life, and impair the recreational use and aesthetic enjoyment of surface waters.
- Maintain reasonable excess capacity in order to protect sewers from increased rate of hydrogen sulfide corrosion and minimize odor and potential maintenance problems.
- Ensure adequate funding and timely completion of the most critically needed sewer capacity projects.
- Promote clear guidance, consistency and predictability to developers regarding the necessary sewer improvements to support development within the City.

Policy IN-3.5: Require development which will have the potential to reduce downstream LOS [level of service] to lower than "D", or development which would be served by downstream lines already operating at a LOS lower than "D", to provide mitigation measures to improve the LOS to "D" or better, either acting independently or jointly with other developments in the same area or in coordination with the City's Sanitary Sewer Capital Improvement Program.

Policy IN-4.1: Monitor and regulate growth so that the cumulative wastewater treatment demand of all development can be accommodated by San José's share of the treatment capacity at the San José/Santa Clara Regional Wastewater Facility.

Policy IN-4.2: Maintain adequate operational capacity for wastewater treatment and water reclamation facilities to accommodate the City's economic and population growth.

Policy IN-4.3: Adopt and implement new technologies for the operation of wastewater treatment and water reclamation facilities to achieve greater safety, energy efficiency and environmental benefit.

Policy IN-4.6: Encourage water conservation and other programs which result in reduced demand for wastewater treatment capacity.

Policy IN-5.1: Monitor the continued availability of long-term collection, transfer, recycling and disposal capacity to ensure adequate solid waste capacity. Periodically assess infrastructure needs to support the City's waste diversion goals. Work with private Material Recovery Facilities (MRF) and Landfill operators to provide facility capacity to implement new City programs to expand recycling, composting and other waste processing.

San José Municipal Code

City Municipal Code Chapter 14.35 adopts the Diridon Station Area Basic Infrastructure Impact Fee, which requires that all new development in the Diridon Station Area Impact Fee Zone contribute to the Diridon Station Area Impact Fee Fund. This fee funds the construction of necessary sanitary sewer infrastructure specified in the Diridon Station Area: Impact Fee Nexus Study for Basic Infrastructure. As described above, the DSAP EIR envisioned construction of sanitary sewer infrastructure, finding that the resulting impacts would be less than significant.[43]

San José Water Conservation Programs

The City's water conservation programs are intended to meet future water needs and minimize flows to the sanitary sewer and sewage treatment systems. The program includes the following elements:

- Limited landscape watering hours
- Restrictions on the use of potable water for construction purposes
- Ultra-low-flow toilet incentives
- A shower head retrofit program
- Landscape ordinances for non-residential new construction
- Commercial/industrial water audits
- Financial incentives for commercial/industrial conservation
- Water use prohibitions
- A ban on cleaning vehicles without an automatic shut-off valve

Sanitary Sewer Level of Service Policy

The City of San José has adopted a level of service (LOS) policy for determining whether sewer mains are adequate to serve development.[44] The levels of service range from "A" to "F," with

[43] City of San José, *Diridon Station Area Plan Draft PEIR*, December 2013.

[44] Sanitary Sewer LOS Policy 8-7 was approved in 1982 to ensure that an adequate and safe level of public services was provided to residences and businesses, and to prevent sewage spills from the collection system that could pose a threat to public health and safety.

LOS A defined as unrestricted flow and LOS F defined as being inadequate to convey existing wastewater flow. To meet the City's guidelines, new developments must meet LOS D or better. At LOS D, the sewer main runs full during peak conditions.[45] For the two main sanitary sewer trunk lines flowing through the project site, the Lincoln Line (under Park Avenue) is flowing at roughly half-full during dry-weather flows; and the Sunol Line (under West Julian Street) is flowing at greater than two-thirds full in dry conditions and may surcharge during wet-weather conditions.[46]

The City is currently revising the LOS to address federal and state regulations and best management practices for sanitary sewer systems. Under current City policy, new development is required to avoid or minimize impacts related to existing or anticipated sewer line deficiencies by constructing, or contributing to the construction of, new lines or by waiting for completion of planned sewer system improvements.

Permitting of Proposed Water Reuse Facility(s)

To permit the proposed water reuse facility(s), coordination with multiple regulatory agencies and stakeholders would be required. The San Francisco Bay Regional Water Board would issue the operational permit or order. The State Water Board's Division of Drinking Water would review the engineering report and provide technical comments on tertiary filtration and disinfection unit processes. The Santa Clara County Department of Public Health may act in an advisory role. The City would act as a permit stakeholder and would issue the building permit.

To receive permit approval, the water reuse facility(s) would be required to meet the following requirements:

- California Water Code, Section 7 (Porter-Cologne Act)
- California Health Laws Related to Recycled Water ("The Purple Book")
- California Code of Regulations Title 22, Division 4, Environmental Health
- California Plumbing Code
- Industrial pretreatment permit and requirements for the discharge of treatment residuals

3.14.6 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this EIR, a utilities and service systems impact related to wastewater would be significant if implementing the proposed project would:

- Require or result in the relocation or construction of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects; or

[45] Peak wet-weather flow assumes rainfall-derived and infiltration flow from a 10-year storm in addition to normal wastewater flows. Sewage flow increases during storm events as a result of inflow from surface water that enters the system through improper sewer connections and manhole covers, and from infiltration of groundwater through leaky sewer pipes and connections.

[46] Arup, Lendlease & Sherwood Design Engineers. *Google Downtown West Infrastructure Plan*, October 7, 2020

- Result in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

Approach to Analysis

This analysis identifies the potential impacts of construction and operation of the proposed project as they relate to wastewater generation and facilities. Information about proposed infrastructure used throughout the analysis is sourced from the *Google Downtown West Infrastructure Plan*, prepared by Arup, Lendlease, and Sherwood Design Engineers (October 7, 2020). The *Google Downtown West Infrastructure Plan* used the City's sanitary sewer model for the Diridon Station Area as the basis for the City's project-specific analysis to determine expected project impacts.

The proposed project is maintaining two options for wastewater servicing: (1) one or two district water reuse facility(s) that would collect wastewater from the development for treatment, with a private wastewater collection system; and (2) traditional wastewater connections from individual buildings that would connect to the City's sanitary sewer system. Each option is analyzed below.

Under the wastewater reuse and collection system option ("preferred option"), the project would construct a private, low-pressure collection network with one or two district water reuse facilities. Based on this design, there would be up to two sanitary sewer connections to the City's system, one per water reuse facility. The district system would discharge wastewater to the City system during times of lower demand for recycled water (e.g., rainy season) or if the district system were offline for any reason. Under the traditional collection system approach (the "business-as-usual" option), individual buildings would connect to the City's sanitary sewer system located within the public right-of-way.

Four scenarios (three scenarios for the preferred option and one for the business-as-usual option) were modeled to determine the project's potential impacts on the City's sanitary sewer system:

1. **Preferred Option, One or Two Water Reuse Facilities:** Discharge via a pipeline within the utilidor, with one point of connection to the sanitary sewer along Almaden Boulevard.
2. **Preferred Option, One Water Reuse Facility:** Discharge of 100 percent of the flows into the Park Avenue line, with one point of connection to the sanitary sewer.
3. **Preferred Option, Two Water Reuse Facilities:** Discharge into both sewer mains in Park Avenue and West Julian Street, with two points of connection to the sanitary sewer.
4. **Business-as-Usual Option.**

As described in the Setting, the City is in the process of upgrading the Fourth Major Interceptor. Of the seven segments, or phases, of the interceptor sewer, the Phase VI upgrades are under construction and design of the Phase VII upgrades is expected to begin in 2021. Therefore, the scenarios including proposed district water reuse facility(s) were modeled with and without Phase VII upgrades.

The initial results of the City's modeling of the proposed sanitary sewer options and scenarios inform the analysis below.[47]

This section also analyzes impacts of the proposed utilidor, because constructing the utilidor would advance the provision of utilities (including sanitary sewer) for the project. The following discussions refer to the detailed analysis in Impact UT-1 as necessary (refer to Section 3.14.3, above).

Impact Analysis—Wastewater

Impact UT-3: The proposed project would not require or result in the relocation or construction of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects. ***(Less than Significant with Mitigation)***

Construction—Wastewater Infrastructure

The project includes a preferred option for a system to collect wastewater from all proposed development blocks via a private collection network to district water reuse facilities. Under this preferred option, the proposed project would include up to two wastewater treatment facilities. The facilities would treat project-generated wastewater to disinfected tertiary recycled water standards for beneficial (unrestricted) reuse[48] to meet the project's non-potable water demands. The on-site wastewater treatment facilities would be constructed within the Southern and Northern Infrastructure Zones (as shown in Chapter 2, Figure 2-9).

The proposed design for wastewater collection includes a private, low-pressure sanitary sewer collection network that would be integrated into the proposed utilidor alignment. Sanitary waste would be collected in a small pump station in each building basement. The pump stations would include a collection tank and a pump to feed into a low-pressure force main, routed within the proposed utilidor. The utilidor would cross underneath all existing sewer lines when crossing through public rights-of-way, and would not require the relocation of any existing sewer lines. The mitigation measures discussed under Impact UT-1 would be implemented to reduce impacts of ground-disturbing construction activities, including construction of facilities in the proposed infrastructure zones and utilidor, to the extent feasible.

The water reuse facility(s) would connect to the existing sewer network for the purpose of discharging excess wastewater. As noted, the district system would tie into the City's sanitary sewer network to receive flows when there are lower demands for recycled water or if the district system were offline for any reason. These discharges would incur a fee based on the City's monitored industrial discharge rates.

The sanitary sewer connection would extend beyond the footprint of the proposed utilidor to make a connection with the City's sanitary sewer. The sanitary sewer connection infrastructure that would serve the project would be installed within the proposed utilidor and one point of connection to the sanitary sewer along Almaden Boulevard. An existing City sanitary sewer trunk line has been

47 Arup, Lendlease & Sherwood Design Engineers. *Google Downtown West Infrastructure Plan*, October 7, 2020

48 State discharge standards for recycled water and its reuse are regulated by the Porter-Cologne Act and the State Water Board's 2019 Water Recycling Policy. Title 22 of the California Code of Regulations refers to state guidelines for the discharge and use of treated and recycled water.

identified running within Almaden Boulevard where a connection is proposed. The point of connection would be determined in coordination with City staff. The connection infrastructure may require some installation within existing roadways once it exits the proposed utilidor.

If a northern water reuse facility is constructed, a second sanitary sewer connection would be required. The northern water reuse facility would connect to the City's sanitary sewer system at West Julian Street via a separate discharge connection outside of the proposed utilidor. This infrastructure is not expected to affect sensitive habitat areas, and aside from short-term construction disturbance, which is analyzed in this draft EIR for the proposed project, it would generate no further environmental impacts.

The analysis of the modeling scenarios performed for the preferred option with the Phase VII upgrades (see *Approach to Analysis*, above) shows the following results:

- Under the One or Two Water Reuse Facilities scenario, in which wastewater would enter the City's system only at Almaden Boulevard, no upgrades to the existing sanitary sewer infrastructure would be needed to accommodate these flows.
- Under the One Water Reuse Facility scenario, where wastewater would enter at Park Avenue, the model results indicate surcharge[49] due to capacity limitations from the connection point to Guadalupe Parkway plus surcharge due to backwater just upstream of the connection point.
- Under the Two Water Reuse Facilities scenario, in which the discharge of wastewater flows would be split between Park Avenue and West Julian Street, the model results indicate that the discharge from the southern water reuse facility would result in surcharge due to capacity limitations along portions of Park Avenue and South Autumn Street and along West St. John Street from North Autumn Street to Guadalupe Parkway. The discharge from the northern water reuse facility to West Julian Street would result in surcharge due to backwater along West Julian Street; however, the backwater represents a Level "D" under the City's LOS policy, which is acceptable.[50]

The analysis of the modeling scenarios performed for the preferred option without the Phase VII upgrades (see *Approach to Analysis*, above) shows the following results:

- Under the One or Two Water Reuse Facilities scenario, in which wastewater would enter the City's system only at Almaden Boulevard, the model results indicate surcharge due to backwater with some surcharge due to capacity limitations along the Almaden Boulevard line from Carlysle Street to the interceptor system at 5th Street and Empire Street, ending beyond the limits of the mapped results.
- Under the One Water Reuse Facility scenario, where wastewater would enter at Park Avenue, the model results indicate surcharge due to capacity limitations mixed with surcharge due to backwater from the connection point along the sanitary sewer line to the interceptor system at 5th Street and Empire Street, ending beyond the limits of the mapped results.
- Under the Two Water Reuse Facilities scenario, in which the discharge of wastewater flows would be split between Park Avenue and West Julian Street, the model results

[49] *Sewer surcharge* refers to the overloading of the sewer beyond its design capacity as a result of the inflow and infiltration of water.
[50] Arup, Lendlease & Sherwood Design Engineers. *Google Downtown West Infrastructure Plan*, October 7, 2020

> indicate that the discharge from the southern water reuse facility would result in surcharge due to capacity limitations along portions of Park Avenue and South Autumn Street and along West St. John Street from North Autumn Street to Almaden Boulevard. The discharge from the northern water reuse facility to West Julian Street would result in surcharge due to capacity limitations along portions of North Pleasant Street and Bassett Street from the Guadalupe River to the interceptor system at 5th Street and Empire Street, ending beyond the limits of the mapped results.[51]

The potential impacts of construction activities in these waterways on biological resources and hydrology are discussed in Section 3.2, *Biological Resources*, and Section 3.8, *Hydrology and Water Quality*, respectively. Therefore, the construction of infrastructure required for connection to the City's existing sanitary sewer system would generate no further impacts beyond those identified in this draft EIR for the proposed project.

Connecting to the City's existing sanitary sewer system on a site-by-site basis is also being considered for the proposed project under the business-as-usual option. The modeling results show that two upgrades would be required: (1) at North Autumn Street between Howard Street and West Julian Street and (2) at West Santa Clara Street between South Montgomery Street and South Autumn Street.[52] This infrastructure is not expected to affect sensitive habitat areas, and aside from short-term construction disturbance, which is analyzed in this draft EIR for the proposed project, it would generate no further environmental impacts. Under the business-as-usual option, no impacts on sanitary sewer siphons would occur.

As discussed below for storm drain infrastructure (refer to Section 3.14.9), the existing Park Avenue Stormwater Pump Station would also likely need to be relocated, likely into a new public utility easement within this development block, to avoid conflicts with the proposed building design. An existing sanitary sewer main running through the block would also be relocated, either into the existing street or within an easement along the north edge of the block.[53] The impacts of relocating the sanitary sewer main are analyzed throughout the EIR as part of the overall project development.

In addition, the proposed project would be subject to the Diridon Station Area Basic Infrastructure Impact Fee, which would constitute the project's fair-share payment toward the improvements to the backbone sanitary-sewer infrastructure necessary to serve development in the Diridon Station Area. The DSAP EIR envisioned construction of expanded sewer infrastructure in the project area. The EIR found that the resulting impacts would be less than significant.[54]

Therefore, with implementation of the mitigation measures listed under Impact UT-1, project impacts related to new or relocated wastewater infrastructure would be **less than significant with mitigation incorporated**.

Arup, Lendlease & Sherwood Design Engineers. *Google Downtown West Infrastructure Plan*, October 7, 2020

52 Arup, Lendlease & Sherwood Design Engineers. *Google Downtown West Infrastructure Plan*, October 7, 2020

53 Arup, Lendlease & Sherwood Design Engineers. *Google Downtown West Infrastructure Plan*, October 7, 2020

54 City of San José, *Diridon Station Area Plan Draft PEIR*, December 2013.

Operation—Wastewater Treatment Facilities

The water reuse facility(s) would include a multi-stage treatment system for primary treatment, secondary treatment, tertiary filtration, and disinfection.[55] The project would provide odor control measures at the initial stage of treatment by housing primary screenings in a ventilated enclosure at the water reuse facility(s). Water that has been tertiary filtered and disinfected would be stored in a non-potable storage tank before being distributed for uses such as toilet flushing, cooling, and irrigation. Treated non-potable water would be distributed via a pressurized distribution network within the private utilidor, described further in Chapter 2, *Project Description*, Section 2.8.3, *Utility Corridor*.

The water reuse facility residuals would be predominantly liquid, with a very low percentage of solids (approximately 2 percent). These solids could be discharged into the City's sanitary sewer system. Based on the Diridon Station Infrastructure Analysis, the City's sanitary sewers have adequate flow to carry these solids to the SJ-SC RWF.[56] As such, it is not anticipated that this discharge would create a high corrosion potential in the sewer lines.

Alternatively, solids produced as a byproduct of on-site treatment could be managed on-site through anaerobic digestion,[57] generating biogas that could be combusted and used in fuel cells to generate electricity.[58,59] Should anaerobic digestion be implemented, co-digestion with food waste collected via the automated waste collection system would increase the amount of biogas and biosolids produced. The digested biosolids would be dewatered and reused beneficially as soil amendments. Larger solids and trash entering the wastewater collection system would be washed and compacted before being collected in a covered bin and intermittently hauled away by trucks.

The water reuse facility(s) would be housed within the central utility plant, which would be soundproofed to alleviate potential noise issues and would include appropriate odor controls (air blowers and odor control units [e.g., carbon filters]) to manage any objectionable odors. A low-pressure collection system (also known as a pressure sanitary sewer) operates through a sealed system, eliminating leakages (exfiltration) and stormwater inflow and infiltration while also reducing odor issues. The pump station wet wells associated with the pressure sanitary sewer

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55 At the initial stage of treatment, raw wastewater would be screened to remove inorganic solids, which would be collected in a roll-off bin and periodically hauled off site. During secondary treatment, a membrane bioreactor would be used to reduce concentrations of organic and inorganic compounds present in the primary effluent. Either a microfiltration or ultrafiltration membrane module would be used to achieve tertiary filtration of the wastewater. Following filtration, the membrane bioreactor effluent would be directed to advanced treatment and disinfection processes. Advanced treatment may be included to achieve color removal and to reduce the risk of microorganism re-growth in the distribution system. Disinfection is typically the final stage in wastewater treatment to reduce the presence of pathogens in treated effluent. Chlorine contact is the conventional means of achieving disinfection, but ultraviolet (UV) irradiation is an alternative disinfection process that could also be used. UV disinfection is the preferred disinfection unit process for the proposed project.

56 No equipment beyond that required for wastewater treatment would need to be installed; however, space could be reserved and pipe connections could be stubbed out to facilitate residual solids treatment and reuse of biosolids on-site in the future.

57 The proposed project could also include source-separated food waste in the digestion process, using a state-of-the-art anaerobic digester for co-digestion.

58 The on-site digestion of wastewater solids could supply enough energy to offset a portion of the energy demand of the water reuse facility(s), including wastewater collection and distribution of recycled water.

59 Arup, Lendlease & Sherwood Design Engineers. *Google Downtown West Infrastructure Plan*, October 7, 2020.

would be vented as required to prevent odorous conditions. If needed, air blowers and odor control units (e.g., carbon filters) would be incorporated into the pump station design.

Grit such as sand, gravel, coffee grounds, and eggshells would be removed to prevent them from accumulating in downstream processes such as aeration basins and anaerobic digesters. Similar to screenings, grit does not have a resource recovery value and would be hauled off site. The screenings and grit would be managed to avoid creating nuisance odors, which may be subject to the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). With this handling and disposal, screenings and grit must be washed and drained, and the wash water may be recycled to the front of the treatment train. Once washed and dewatered, the screenings and grit would be stored in refuse containers satisfying the City's requirements, and routinely hauled off-site to a permitted landfill. Refuse containers would be odor-proof and contained in an area that would drain to the sanitary sewer in the case of a rain event. Odor control measures may also include housing primary screenings in a ventilated enclosure at the water reuse facility(s).

Primary treatment and management of primary and secondary solids would also produce odors. The water reuse facility(s) would have appropriate odor controls to manage any objectionable odors from these processes, with venting and containment similar to that described above. Should the odor control design prove to be inadequate (e.g., public complaints are received by the facility operator or BAAQMD),), a typical approach would involve setting up a monitoring network to quantify concentrations of odor compounds. Control designs would be revisited to further reduce source odors and bring concentrations below the BAAQMD threshold levels. Refer to Section 3.1, *Air Quality*, and Section 3.10, *Noise and Vibration*, for further discussion.

Secondary solids would also be required to meet the Part 503 Standards for the Use or Disposal of Sewage Sludge. SB 1383 restricts the amount of organics that can be landfilled. Therefore, if the wastewater solids were managed on site, a beneficial land application location would be identified and permitted to receive the treated biosolids. If too many biosolids were available to be applied to uses such as the landscaped areas of the project's open space, a permitted off-site location would be identified and used. As discussed in Section 3.12, *Public Services and Recreation*, many parks and open spaces are located within project vicinity. The hauling distance for treated biosolids would be minimized to the greatest extent feasible. Therefore, operational impacts related to the proposed water reuse facility(s) would be **less than significant with mitigation**.

> **Mitigation:** Refer to the list of mitigation measures under Impact UT-1.
>
> **Significance after Mitigation:** Less than significant. Although the proposed project as a whole would result in significant and unavoidable construction-related air quality and noise impacts, construction work involving utilities is included in the overall construction analysis. The utility construction work would be relatively minimal and would not, by itself, exceed any significance thresholds for air quality or noise. Therefore, for construction related to utilities, the impact would be less than significant with mitigation incorporated.

Impact UT-4: The proposed project would not result in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. ***(Less than Significant)***

The proposed project would increase demand for wastewater treatment services. As discussed under Impact UT-3, the project includes a preferred option for a system that would collect wastewater from all of the project's proposed development blocks via a private collection network to the district water reuse facility(s). During typical project operation, the on-site wastewater treatment facilities would not send any flows or solids to the City's sewer system when there is sufficient demand for recycled water.

The on-site system would tie into the City's sanitary sewer network to receive any excess wastewater flows or in the event of on-site plant failure.[60] Under this option, the project would contribute minimal flows during peak irrigation and cooling season and more flows during the wet season. As discussed in Section 3.14.4, *Environmental Setting*, the City has approximately 36.2 mgd of excess treatment capacity at the SJ-SC RWF. Therefore, the proposed project with the district water reuse facility(s) would have a less-than-significant impact on the ability of the SJ-SC RWF to meet existing demand for wastewater services.

As discussed above, connection to the City's existing sanitary sewer system throughout the district is also under consideration for the proposed project. Sewer flows into the City's sanitary sewer system would be treated at the SJ-SC RWF. Based on City modeling, the project could generate wastewater flows of approximately 2.52 mgd.[61,62] This increase represents approximately 7 percent of the City's excess treatment capacity at the SJ-SC RWF. Therefore, the proposed project would have a less-than-significant impact on the ability of the sewer system to meet existing demand for wastewater services. The project would not result in wastewater capacity issues. This impact would be **less than significant**.

Mitigation: None required.

Cumulative Impacts—Wastewater

The cumulative geographic context for wastewater systems considers the service areas of the local utility providers. The City's projections of conveyance and treatment capacity are considered in this analysis.

60 Arup, Lendlease & Sherwood Design Engineers. *Google Downtown West Infrastructure Plan*, October 7, 2020.

61 Existing demand for potable water accounts for approximately 230,000 gpd, yielding wastewater flows of approximately 207,000 gpd of existing wastewater flow. Thus, net wastewater flow would be approximately 2.5 million gpd.

62 The project applicant has submitted a memorandum to the City and San Jose Water Company proposing that San Jose Water Company review and adjust the demand factors used to estimate the project's water demand (Sherwood Design Engineers, *Technical Memorandum, Downtown West Mixed-Use Project Water Demands*, March 18, 2020). These proposed factors include demand factors, which would decrease the overall water demand for the project, compared to that estimated by San Jose Water Company, thereby reducing the amount of wastewater produced. This EIR conservatively uses the City's wastewater demand factors to estimate wastewater generation.

Impact C-UT-2: 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 wastewater utility systems. ***(Less than Significant)***

Wastewater Infrastructure

The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, could result in the construction of new or expanded wastewater treatment facilities as a result of increased demands for service. The 2040 General Plan and Downtown Strategy EIRs concluded that planned growth would not result in a significant impact associated with the construction of additional sanitary sewer infrastructure, with implementation of existing programs, regulations, and General Plan policies.[63], [64]

Development of the proposed project may exceed the growth anticipated in the General Plan and the Downtown Strategy 2040 (refer to Section 3.11, *Population and Housing*) for the project site. In addition, the proposed amendments to the DSAP would increase density beyond what was previously considered for the plan area. The cumulative increase in density could result in the need for additional infrastructure improvements in the Downtown area. As discussed under Impact UT-3, the proposed project includes a suite of wastewater infrastructure improvements to fully address wastewater requirements for the project, the construction of which would not result in significant impacts. The DSAP EIR concluded that planned growth would not result in a significant impact associated with the construction of additional wastewater infrastructure, with implementation of existing programs, regulations, and General Plan policies.[65] The proposed project and other projects in the Diridon Station Area would be subject to the Diridon Station Area Basic Infrastructure Impact Fee, which would constitute fair-share payment toward the improvements to the backbone sanitary-sewer infrastructure necessary to serve development in the Diridon Station Area. Therefore, the proposed project would not contribute considerably to a significant cumulative impact in this regard, and impacts would be **less than significant**.

Wastewater Treatment

The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, would increase the demand for wastewater treatment. According to the 2040 General Plan EIR, development under the General Plan is estimated to generate an average of approximately 30.8 mgd of dry-weather influent flow. Because the City has approximately 36.2 mgd of excess treatment capacity at the SJ-SC RWF, planned growth in San José is not expected to exceed the City's allotted capacity.

Development of the proposed project may exceed the growth anticipated for the project site in the General Plan and the Downtown Strategy 2040 (refer to Section 3.11, *Population and Housing*). However, as discussed under Impact UT-3, with the proposed project under the preferred option, the on-site wastewater treatment facilities would send reduced flows and/or solids to the City's sewer system. Sewer flows into the City's sanitary sewer system would be treated at the SJ-SC RWF.

63 City of San José, *Envision San José 2040 General Plan Draft Program EIR*, June 2011.
64 City of San José, *Downtown Strategy 2040 Integrated Final EIR*, December 2018.
65 City of San José, *Envision San José 2040 General Plan Draft Program EIR*, June 2011.

Should the proposed project only tie into the City's sewer system, the project would contribute approximately 2.52 mgd to the SJ-SC RWF. This increase represents approximately 7 percent of the City's excess treatment capacity at the SJ-SC RWF. Conservatively assuming that none of the project's contribution is included in the General Plan contribution, the SJ-SC RWF and the sanitary sewer system would continue to have excess capacity with the addition of project flows. Therefore, the cumulative impact related to wastewater treatment capacity would be less than significant, and the proposed project would not contribute considerably to a significant cumulative impact on wastewater treatment capacity. Impacts would be **less than significant**.

Mitigation: None required.

Stormwater

3.14.7 Environmental Setting

Stormwater Collection and Treatment

The project site is currently occupied mostly by industrial and commercial development, with many large asphalt parking lots and minimal existing landscaped areas, making the site approximately 97 percent impervious. The existing developments do not treat stormwater runoff before it is discharged to the City's collection network.

The project site is served by the City's existing storm drain network. In the project area, the system drains to Los Gatos Creek and the Guadalupe River, which are under the jurisdiction of Valley Water.[66] The project site drains via 17 existing sub-watersheds that outfall directly into either Los Gatos Creek, Guadalupe Creek, or the Guadalupe River. There are three pump stations on the project site: the Park Pump Station, on the northeast corner of the existing San José Fire Department Training Center (Park Avenue); the Julian Pump Station, in the northeast corner of SAP Center Parking Lots A, B, and C (Julian Street); and the Cahill Pump Station, on West Santa Clara Street at the rail crossing underpass (West Santa Clara Street).[67]

Stormwater Drainage System Improvements

The City of San José does not currently maintain an ongoing storm drain assessment model to identify the existing conditions of storm drain pipes. However, a preliminary storm drain modeling analysis conducted as part of the *Diridon Station Area Infrastructure Analysis* did identify flooding during the 10-year, 24-hour storm event under existing conditions, including the intersection of Montgomery Street and Cinnabar Street, and along Santa Clara Street between Cahill Street and Autumn Street.[68,69] Localized flooding over 1 foot was also modeled on San Carlos Street from Leigh Avenue to Race Street under existing conditions caused by insufficiently sized pipes downstream. However, the flooding is not identified in the project area.[70]

The *Diridon Station Area Infrastructure Analysis* found that the storm drain infrastructure does not have the capacity to convey existing flows. Improvements would be required to mitigate flooding in the Diridon Station Area and the larger watershed, related to development in the Diridon Station Area. The improvements to backbone stormwater infrastructure identified include upsizing and constructing new pipes through the project site in Cinnabar Street, Santa Clara Street, and San Fernando Street and at the intersection of Park Avenue and Montgomery Street. These projects would add new outfalls to Los Gatos Creek and would require flap gates to control exit conditions.[71] The DSAP EIR envisioned construction of this infrastructure, finding that the resulting impacts would be less than significant.[72] Since publication of the DSAP EIR, the City has undertaken a

66 City of San José, *Diridon Station Area Infrastructure Analysis*, January 31, 2017.
67 Arup, Lendlease & Sherwood Design Engineers. *Google Downtown West Infrastructure Plan*, October 7, 2020.
68 City of San José, *Diridon Station Area Infrastructure Analysis*, January 31, 2017.
69 Schaaf & Wheeler, *Google San Jose Storm System Analysis*, August 2020.
70 Schaaf & Wheeler, *Google San Jose Storm System Analysis*, August 2020.
71 City of San José, *Diridon Station Area Infrastructure Analysis*, January 31, 2017.
72 City of San José, *Diridon Station Area Plan Draft PEIR*, December 2013.

storm drain master plan project in 2020 that included remodeling of the storm drain system within the DSAP area. Improvements identified in the updated modeling are generally consistent with those identified in the 2017 Diridon Station Area Infrastructure Analysis.

3.14.8 Regulatory Framework

Federal and state laws regarding stormwater focus primarily on the regulation of pollutant discharges that could contaminate surface waters or groundwater. As such, the federal Clean Water Act and NPDES, as well as the state Porter-Cologne Act, regulate stormwater runoff, as discussed in Section 3.14.5, above. Refer to Section 3.8, *Hydrology and Water Quality*, Section 3.8.2, *Regulatory Setting*, for additional description and requirements.

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 (County) and Valley Water, are co-permittees. These entities formed the Santa Clara Valley Urban Runoff Pollution Prevention Program to collectively address waste discharge requirements and manage stormwater runoff from storm drains and watercourses within their jurisdictions.

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

Envision San José 2040 General Plan

The General Plan contains the following relevant policies related to stormwater systems:

Policy IN-1.5: Require new development to provide adequate facilities or pay its fair share of the cost for facilities needed to provide services to accommodate growth without adversely impacting current service levels.

Policy IN-1.5: Ensure that public facilities and infrastructure are designed and constructed to meet ultimate capacity needs to avoid the need for future upsizing. For facilities subject to incremental upsizing, initial design shall include adequate land area and any other elements not easily expanded in the future. Infrastructure and facility planning should discourage over-sizing of infrastructure which could contribute to growth beyond what was anticipated in the 2040 General Plan.

Policy IN-1.7: Implement financing strategies, including assessment of fees and establishment of financing mechanisms, to construct and maintain needed infrastructure that maintains established service levels and mitigates development impacts to these systems (e.g., pay capital costs associated with existing infrastructure that has inadequate capacity to serve new development and contribute toward operations and maintenance costs for upgraded infrastructure facilities).

Policy IN-3.1: Achieve minimum level of services:

- For storm drainage, to minimize flooding on public streets and to minimize the potential for property damage from stormwater, implement a 10-year return storm design standard throughout the City, and in compliance with all local, State and Federal regulatory requirements.

Policy IN-3.3: Meet the water supply, sanitary sewer and storm drainage level of service objectives through an orderly process of ensuring that, before development occurs, there is adequate capacity. Coordinate with water and sewer providers to prioritize service needs for approved affordable housing projects.

Policy IN-3.9: Require developers to prepare drainage plans that define needed drainage improvements for proposed developments per City standards.

San José Municipal Code

City Municipal Code Chapter 14.35 adopted the Diridon Station Area Basic Infrastructure Impact Fee, which requires that all new development in the Diridon Station Area Impact Fee Zone contribute to the Diridon Station Area Impact Fee Fund. This fee funds the construction of necessary storm drainage and flood control infrastructure specified in the Diridon Station Area:

Impact Fee Nexus Study for Basic Infrastructure, as described in Section 3.14.5, *Regulatory Framework*, in the *Wastewater* section, above.

City of San Jose Policy 6-29 (Post-Construction Urban Runoff Management)

City of San José Policy 6-29 implements the stormwater treatment requirements of Provision C.3 of the MRP. City Council Policy 6-29 requires new development and redevelopment projects to implement post-construction best management practices and treatment control measures, including minimizing stormwater flow.

3.14.9 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this EIR, a utilities and service systems impact related to stormwater would be significant if implementing the proposed project would:

- Require or result in the relocation or construction of new or expanded stormwater drainage facilities, the construction or relocation of which could cause significant environmental effects.

Approach to Analysis

This analysis identifies the potential impacts of construction and operation of the proposed project as they relate to stormwater generation and facilities. Information about proposed infrastructure used throughout the analysis is sourced from the *Google Downtown West Infrastructure Plan*, prepared by Arup, Lendlease, and Sherwood Design Engineers (October 7, 2020).

This analysis also relies upon the *Google San Jose Storm System Analysis*, prepared by Schaaf & Wheeler (August 2020). Improvements to the City's backbone storm drain infrastructure were based on results of the latest storm drain master plan modeling for the 10-year storm event provided by the City (August 2020). The City's storm drain model represents the piping system, integrated riverine system, and overland flows throughout the City. The proposed condition scenario was developed to assess the storm drain needs in the Diridon Station Area and upstream watershed based on the condition in which upstream pipe capacity restrictions are removed. Pipes found to have capacity deficiencies and considered for improvements would be improved to meet current standard design guidelines described in the Santa Clara County Drainage Manual and the City's 2002 Development Manual (Development Manual). Backbone improvements are those that have broad benefit to large areas of the Diridon Station Area and upstream watershed, and would be constructed in a comprehensive manner, rather than incrementally with each development. Proposed backbone improvements include those within the Downtown West project boundary, remaining improvements would be led by the City in the future and completed in conjunction with DSAP development outside of the project site. Individual developments would still be obligated to construct frontage improvements, storm drain services, and localized

storm drain improvements beyond those listed in the *Downtown West Storm System Analysis* consistent with City policies and as required by conditions of approval.[73]

Impact Analysis

Impact UT-5: The proposed project would not require or result in the relocation or construction of new or expanded stormwater drainage facilities, the construction or relocation of which could cause significant environmental effects. *(Less than Significant with Mitigation)*

The proposed project would construct approximately 6,300 linear feet of new storm drain facilities in both existing and new streets to serve new development, new streets, or streets with new stormwater treatment. Existing storm drain pipes would also be upgraded on- and off-site to address potential flooding issues associated with the project (described further in Section 3.8, *Hydrology and Water Quality*). Upsizing and constructing a new, larger storm drainage pipe in Cinnabar Street and North Autumn Street in the northern portion of the site, to connect with a new storm drain installed in North Autumn Street in connection with the under-construction Platform 16 project, would eliminate flooding in Cinnabar Street and North Autumn Street. These new storm drainage pipes would connect to an existing outfall east of the abandoned Howard Street that drains to the Guadalupe River. The City plans to increase the size of the outfall as part of its ongoing Capital Improvement Program, with construction occurring independently of the proposed project. The proposed project would construct approximately 880 feet of 66-inch storm drain pipeline in Cinnabar Street from the Caltrain tracks to North Autumn Street and about 185 feet of 18-inch pipeline in North Montgomery Street just south of Cinnabar Street.

The proposed project would also construct approximately 840 feet of storm drain pipe in West Santa Clara Street from Cahill Street to Los Gatos Creek. The proposed larger pipe in West Santa Clara Street would eliminate flooding in the respective areas identified along West Santa Clara Street.[74] The project would also reconstruct the existing outfall to Los Gatos Creek, upsizing the existing 18-inch pipe to a 33-inch pipe. The outfall, located underneath the West Santa Clara Street overcrossing, would require a new and larger flap gate to accommodate the larger pipe and to control exit conditions.

The proposed project would remove two street segments to align with the new street grid: South Montgomery Street between West San Fernando Street and Park Avenue; and North Montgomery Street for approximately 200 linear feet north of West St. John Street. These upgrades are proposed to mitigate existing flooding, as the proposed development does not increase discharge to the storm drain mains.

The potential impacts of construction activities in these waterways on biological resources and hydrology are discussed in Section 3.2, *Biological Resources*, and Section 3.8, *Hydrology and Water Quality*, respectively. The existing Park Avenue Pump Station would also likely need to be relocated, likely into a new easement within this development block, to avoid conflicts with the

[73] Schaaf & Wheeler, *Google San Jose Storm System Analysis*, August 2020.
[74] Schaaf & Wheeler, *Google San Jose Storm System Analysis*, August 2020.

proposed building design. Existing storm drain infrastructure would also be relocated, either into the existing street or within an easement along the north edge of the block.[75] The impacts of relocating the pump station are analyzed as part of the overall project development throughout the EIR.

The proposed project would be subject to the Diridon Station Area Basic Infrastructure Impact Fee, which would constitute the project's fair-share payment toward the improvements to backbone stormwater infrastructure necessary to serve development in the Diridon Station Area.

The proposed project would also include an on-site stormwater management system that may include bioretention, flow-through planters, pervious paving, green roofs, and potentially rainwater harvesting or infiltration facilities. As discussed in Section 3.8, *Hydrology and Water Quality*, this system would be designed to comply with all regulatory requirements for stormwater management, at a minimum. The project would be designed to implement site design, source control, and Low Impact Development–based stormwater management consistent with Provision C.3 of the MRP and City Policy 6-29, which would minimize stormwater runoff and impacts to the storm drainage system. Improvements to storm drain infrastructure would occur mainly within the project site, with connections off-site within public rights-of-way, and would generate no further impacts beyond those identified in this draft EIR for the proposed project.

In addition, one of the major components of the new streetscapes is stormwater treatment areas and tree planters, which require subgrade area. Thus, some existing utilities within the right-of-way may require relocation to avoid conflicts between proposed streetscape elements and existing utilities. These relocations would also occur within the right-of-way, and would generate no further impacts beyond those identified in this draft EIR for the proposed project.

In addition, the DSAP EIR envisioned construction of expanded storm drain infrastructure in the project area, some of which may overlap with the proposed project improvements. Improvements included upsizing of pipelines in Cinnabar and North Autumn Streets and in West Santa Clara Street from Diridon Station to Los Gatos Creek. The EIR found that the resulting impacts would be less than significant.[76] However, independent of the analysis previously performed for the proposed pipeline upsizing, required storm drain infrastructure improvements are analyzed throughout the EIR as part of the overall project development. Therefore, with implementation of the mitigation measures listed under Impact UT-1, project impacts related to new or relocated storm drain infrastructure would be **less than significant with mitigation incorporated**.

> **Mitigation:** Refer to the list of mitigation measures under Impact UT-1.
>
> **Significance after Mitigation:** Less than significant. Although the proposed project as a whole would result in significant and unavoidable construction-related air quality and noise impacts, construction work involving utilities is included in the overall construction analysis. The utility construction work would be responsible for a small portion of these impacts. Therefore, for construction related to utilities, the impact would be less than significant with mitigation incorporated.

[75] Arup, Lendlease & Sherwood Design Engineers. *Google Downtown West Infrastructure Plan*, October 7, 2020.
[76] City of San José, *Diridon Station Area Plan Draft PEIR*, December 2013.

Cumulative Impacts—Stormwater

The cumulative geographic context for storm drain systems considers the service areas of the local utility providers, specifically the City's existing storm drain network. Development under the City's General Plan and amendments to the DSAP for storm drain infrastructure are considered in this analysis.

Impact C-UT-3: 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 stormwater utility systems. ***(Less than Significant)***

Stormwater Infrastructure

The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, could result in the construction of new or expanded storm drainage facilities as a result of increased demands for service. The 2040 General Plan and Downtown Strategy EIRs concluded that planned growth would not result in a significant impact associated with the construction of additional stormwater infrastructure, with implementation of existing programs, regulations, and General Plan policies.[77][78]

Development of the proposed project may exceed the growth anticipated for the Downtown area in the General Plan and the Downtown Strategy 2040 (refer to Section 3.11, *Population and Housing*). In addition, the proposed amendments to the DSAP would increase density beyond what was previously considered for the plan area. The cumulative increase in density could result in the need for additional infrastructure improvements in the Downtown area. However, as discussed under Impact UT-1, the proposed project includes stormwater infrastructure improvements to fully address stormwater demands for the project, the construction of which would not result in significant impacts.

The proposed stormwater management improvements may include bioretention, flow-through planters, pervious paving, green roofs, and potentially rainwater harvesting or infiltration facilities. As discussed in Section 3.8, *Hydrology and Water Quality*, this system would be designed to comply with all regulatory requirements for stormwater management, at a minimum, which are designed to minimize stormwater runoff. The proposed project would include its own on-site stormwater management system and stormwater infrastructure improvements, but construction would not result in significant impacts; therefore, the proposed project would not contribute considerably to a significant cumulative impact in this regard. Impacts would be **less than significant**.

Mitigation: None required.

[77] City of San José, *Envision San José 2040 General Plan Draft Program EIR*, June 2011.
[78] City of San José, *Downtown Strategy 2040 Integrated Final EIR*, December 2018.

Other Utilities

3.14.10 Environmental Setting

Electricity

Pacific Gas and Electric Company (PG&E) and San José Clean Energy (SJCE) provide electric service in San José. SJCE 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.[79] SJCE customers are automatically enrolled in the GreenSource program, which includes electricity that is generated by renewable and carbon-free sources and is approximately 80 percent carbon free. Customers can also choose a TotalGreen plan with 100 percent renewable energy, or can opt out and choose to remain customers of PG&E.[80] PG&E also provides natural gas service in San José.

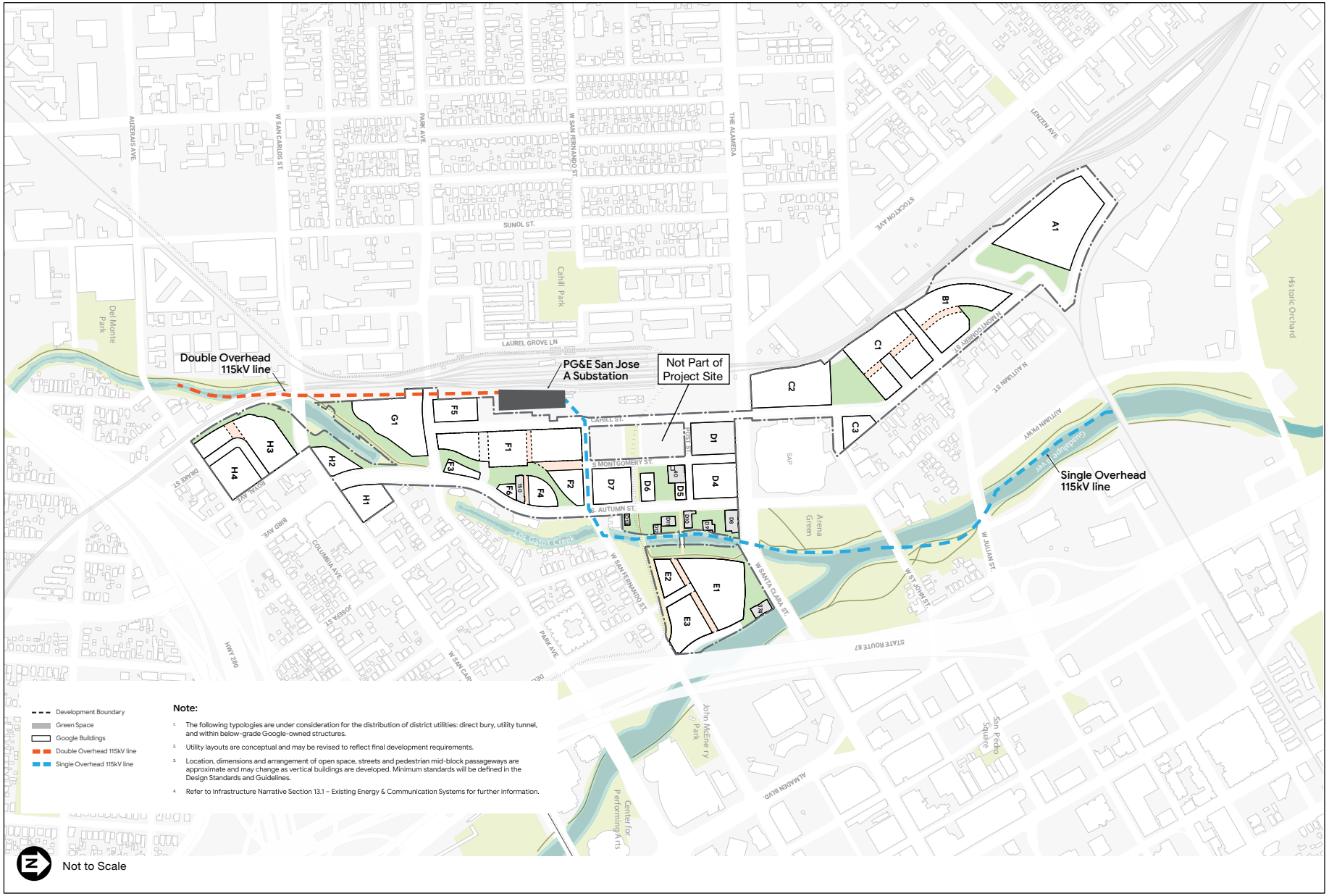
Existing electrical infrastructure near the project site includes a transmission corridor to the PG&E San Jose A Substation, adjacent to the project site to the east. A double overhead 115-kilovolt (kV) transmission line runs south from the substation and connects to the El Patio Substation in the city of Campbell; a single overhead 115 kV transmission line runs west from the substation along West San Fernando Street and follows Los Gatos Creek and the Guadalupe River to the north, connecting with the San Jose B Substation, located northeast of the project site near the intersection of Coleman Avenue and State Route 87. **Figure 3.14-2** illustrates the existing substation and overhead power lines.

In the project area, there are overhead and underground PG&E distribution systems, and overhead and underground secondary distribution and service systems for various voltages below 600 volts. The substation has two available distribution voltages: 12.47 kV and 4.16 kV. In its current configuration, the San Jose A Substation has around 5 megawatts of capacity remaining on the 12.47 kV network. The 4.16 kV system is legacy voltage and not available for new customers.[81]

Natural Gas

PG&E also provides natural gas service in San José. Existing natural gas infrastructure within the project site includes gas mains within sections of Cinnabar Street, Delmas Street, Autumn Street, West San Fernando Street, and Stover Alley. Existing blocks serviced by gas infrastructure connect either to these interior lines or lines in adjacent roadways; however, not all existing blocks are served by natural gas connections. A gas transmission line also terminates near the project site at the corner of Julian Street and Autumn Street, which serves mains within the project site. The transmission line originates north and east of the termination, and does not pass through the project site.[82]

[79] San José Clean Energy, FAQ. Available at https://www.sanjosecleanenergy.org/faq. Accessed October 12, 2019.
[80] San José Clean Energy, The Choice is Yours. Available at https://www.sanjosecleanenergy.org/your-choices. Accessed October 12, 2019.
[81] Arup, Lendlease & Sherwood Design Engineers. *Google Downtown West Infrastructure Plan*, October 7, 2020.
[82] Arup, Lendlease & Sherwood Design Engineers. *Google Downtown West Infrastructure Plan*, October 7, 2020.



SOURCE: Google, 2020

Downtown West Mixed-Use Plan

Figure 3.14-2
Existing Transmission Corridor

Telecommunications

The telecommunications system serving the project area consists of aboveground and buried telecommunications circuits from several providers, primarily AT&T and Comcast. Comcast uses a combination of coaxial cables and strand-mounted active equipment for service. Medium-count copper cables provide voice services to businesses and residents in the area, and fiber-optic cables also provide high-speed data service.

North of the SAP Center/The Alameda, circuits include a mix of pole-mounted communications cables on PG&E poles, with undergrounding at rail crossings and major street intersections. Cable is located underground in the area to the south and east of the SAP Center. South of The Alameda, telephone and cable TV lines are primarily aboveground, and mounted on electrical poles with a few dedicated telecommunications poles. Undergrounding occurs at major intersections, creek/river crossings, and rail crossings.

There are also train signaling cables in the project area, including an aboveground pole-mounted signaling cable from the main Caltrain trunk to the rail crossing between Cinnabar Street and North Autumn Street. Additionally, in the area to the east of Diridon Station at Crandall Street before the tracks emerge aboveground, there are light-rail communications and signaling circuits.

The project area contains one cross-connect box, an outdoor metal box that allows access to telecommunications wiring, at southeast corner of Cinnabar Street and North Montgomery Street. While outside the project area, there is also a cross-connect box and an active equipment controlled environment vault at the northwest corner of West St. John Street and North Autumn Street that appears to serve the SAP Center.

There are four pole-mounted cellular telephone sites in the project area:

- Southeast corner of North Montgomery Street
- Mid-block on the south side of West Julian Street
- Mid-block on the east side of South Montgomery Street south of Crandall Street
- Mid-block on the west side of South Montgomery Street adjacent to the Fire Training Center

There is also a radio transmission tower in PG&E Substation A south of Diridon Station.

The central office that serves the project area is the AT&T San Jose A central office at 95 Almaden Avenue. There is also an AT&T service center located at 145 South Montgomery Street. While this is no longer identified as a central office, there is an underground telecommunications structure on South Montgomery Street and a large telecommunications structure consisting of multiple underground vaults in both the north and south lanes of Park Avenue.

Electricity, Gas, and Telecommunications Improvements

The *Diridon Station Area Infrastructure Analysis* assumed that all overhead distribution facilities, including electric and telecommunication lines, would be undergrounded in conjunction with development of the Diridon Station Area. The analysis also recommended undergrounding the overhead utilities along backbone streets during construction of the proposed roadway improvements.

The analysis included land use changes equivalent to Commercial Downtown uses in the area occupied by PG&E Substation A on Otterson Street, south of Diridon Station. These office and commercial uses could be applied to increase densities at other sites, if the substation were to remain. According to the *Diridon Station Area Infrastructure Analysis*, should the site be redeveloped, the PG&E substation and portions of the associated overhead transmission system would need to be relocated to another suitable and available property.

3.14.11 Regulatory Framework

Local

San José Reach Code

Reach codes are building codes that are more advanced than those required by the state. In September 2019, the San José City Council approved a building reach code ordinance (Ordinance No. 30311) that encourages building electrification and energy efficiency. In October 2019, the City Council approved an ordinance (Ordinance No. 30330) prohibiting natural gas infrastructure in new detached accessory dwelling units, single-family, and low-rise multi-family buildings that would supplement the reach code ordinance.

Envision San José 2040 General Plan

The General Plan contains the following relevant policies related to other utilities:

> **Policy IN-1.5:** Require new development to provide adequate facilities or pay its fair share of the cost for facilities needed to provide services to accommodate growth without adversely impacting current service levels.
>
> **Policy IN-1.5:** Ensure that public facilities and infrastructure are designed and constructed to meet ultimate capacity needs to avoid the need for future upsizing. For facilities subject to incremental upsizing, initial design shall include adequate land area and any other elements not easily expanded in the future. Infrastructure and facility planning should discourage over-sizing of infrastructure which could contribute to growth beyond what was anticipated in the 2040 General Plan.
>
> **Policy IN-1.7:** Implement financing strategies, including assessment of fees and establishment of financing mechanisms, to construct and maintain needed infrastructure that maintains established service levels and mitigates development impacts to these systems (e.g., pay capital costs associated with existing infrastructure that has inadequate capacity to serve new development and contribute toward operations and maintenance costs for upgraded infrastructure facilities).

3.14.12 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this EIR, a utilities and service systems impact would be significant if implementing the proposed project would:

- Require or result in the relocation or construction of new or expanded electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

Approach to Analysis

This analysis identifies the potential impacts of construction and operation of the proposed project as they relate to electric, natural gas, and telecommunications facilities. Information about proposed infrastructure used throughout the analysis is sourced from the *Google Downtown West Infrastructure Plan*, prepared by Arup, Lendlease, and Sherwood Design Engineers (October 7, 2020).

This section also addresses impacts of the proposed utilidor, as the utilidor would advance the provision of utilities (including potential microgrid electrical, thermal energy, and telecommunications) for the project. The following discussions refer to the detailed analysis in Impact UT-1 as necessary (refer to Section 3.14.3, above).

Impact Analysis—Other Utilities

Impact UT-6: The proposed project would not require or result in the relocation or construction of new or expanded electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. ***(Less than Significant with Mitigation)***

Electricity and Thermal Energy

Electricity

Additional electrical service would be required to meet the project's energy needs. The proposed project, as part of the infrastructure plan[83] for the project site, would require upgrades to the existing electrical transmission and distribution infrastructure (as described in Chapter 2, *Project Description*). The proposed electrical infrastructure improvements are shown in Chapter 2, Figure 2-9.

The existing PG&E overhead transmission circuits may be placed underground as part of the project. To facilitate this effort, transition stations (from overhead to underground) would be required off-site at the locations of existing PG&E electrical towers. Because these transition stations would be located within the footprint of existing PG&E infrastructure, impacts would be minimal. Portions of the transmission lines proposed to be undergrounded are located mainly within existing roads and rights-of-way, both on and off site. The proposed undergrounding of the northern 115 kV single overhead line would involve a segment crossing the Guadalupe River.

[83] Arup, Lendlease & Sherwood Design Engineers. *Google Downtown West Infrastructure Plan*, October 7, 2020.

The potential impacts of construction activities in these waterways on biological resources and hydrology are discussed in Section 3.2, *Biological Resources*, and Section 3.8, *Hydrology and Water Quality*, respectively. Therefore, the construction of infrastructure required for undergrounding of PG&E transmission infrastructure would generate no further impacts beyond those identified in this draft EIR for the proposed project.

The existing PG&E San Jose A Substation would also require improvements, consisting of a new ancillary control building and associated battery building, and other electrical and telecommunications equipment. In addition, the El Patio and San Jose B Substations may require minor equipment improvements. These improvements would be constructed within the existing footprints of the substations, and would generate no further impacts beyond those identified in this draft EIR for the proposed project.

A gas-insulated switching station and project substation would be installed on the project site. The station would be located in the Southern Infrastructure Zone, construction of which is analyzed in this draft EIR (e.g., Section 3.1, *Air Quality*, and Section 3.10, *Noise and Vibration*, among others). Alternatively, the switching station may be able to be located within San Jose A allowing for direct PG&E distribution service from San Jose A. In this option the project would not require a new dedicated customer substation and switching station, and would be served with 12 kV supplies directly from San Jose A. San Jose A would be upgraded to accommodate direct distribution needs for the project.

The proposed project would also provide localized infrastructure from the substation to connect the majority of buildings within the project site in a microgrid with a single point of connection to the main grid. The microgrid would include controls to share power between buildings across the microgrid distribution, and controls to operate any below-substation generation and storage disconnected from the grid in the event of an outage.

It is not anticipated, however, that the microgrid would have sufficient renewable energy and storage to operate for an extended period in an islanded scenario, given the high-density nature of the project. The intent of a single point of connection and microgrid topology is primarily to enable the sharing of renewable power and storage and provide limited resilience to critical functions in the event of an outage. The electrical distribution infrastructure for the microgrid would be located within the utilidor or direct-buried in a joint trench, the construction of which is analyzed in this draft EIR. Each individual building, or groups of buildings, would then contain step-down transformers to provide building-level 480-volt power. The mitigation measures discussed in Impact UT-1 would be implemented to reduce impacts of ground-disturbing construction activities, including construction of facilities within the proposed utilidor and infrastructure zones, to the extent feasible.

Some buildings may not connect to the microgrid; these include existing buildings that would remain on the project site, some residential buildings, and blocks that may require power before construction of the central utility plants and microgrid because of phasing. Electrical distribution to buildings outside the microgrid would be provided by PG&E to the main meter for the building via distribution lines in a joint trench located in the public right-of-way, rather than via the private

utilidor, and would generate no further impacts beyond those identified in this draft EIR for the proposed project. Renewable generation and storage assets located at these buildings would not contribute to the microgrid.

Therefore, with implementation of the mitigation measures listed under Impact UT-1, impacts related to new or relocated electrical infrastructure would be **less than significant with mitigation incorporated**.

Thermal Energy

Central utility plants located in infrastructure zones on the project site would provide thermal energy for the proposed project. The central utility plants would provide hot water for heating and chilled water for cooling to all office buildings, and potentially to all buildings on the site. A limited number of buildings may not receive thermal service from the central utility plants because of phasing or construction limitations. These include existing buildings that would remain on the project site, certain residential buildings, and blocks that may be constructed before completion of the central utility plants and the hot and chilled water line infrastructure. Where appropriate, temporary thermal service may be located at these blocks with a later connection to the central utility plants, replacing the temporary service when appropriate. In other cases, the blocks would maintain stand-alone thermal equipment unconnected to a central utility plant.

Hot water and chilled water would be distributed via infrastructure included as part of the proposed utilidor or where necessary direct buried and central utility plants, construction of which is analyzed in this draft EIR. Condenser water pipes connecting the ground source heating and cooling within the subsurface foundations would also be present in the utilidor, connecting ground loops to the central utility plants. Therefore, with implementation of the mitigation measures listed under Impact UT-1, impacts associated with new thermal energy infrastructure would be **less than significant with mitigation incorporated**.

Natural Gas

The proposed project is designed to reduce the use of natural gas and to be combustion-free by providing heating and cooling only through electric equipment. The project applicant's preferred option is not to use natural gas. However, the proposed project may need to use natural gas on-site in up to 20,000 square feet of restaurant kitchen space; otherwise, systems are anticipated to be all-electric. If necessary, the project would construct new natural gas infrastructure to connect into existing natural gas distribution pipelines. Natural gas infrastructure would be provided to these buildings by PG&E, via distribution lines located in a joint trench in the public right-of-way rather than the private utilidor, and would generate no further impacts beyond those identified in this draft EIR for the proposed project. Therefore, with implementation of the mitigation measures listed under Impact UT-1, impacts related to new or relocated gas infrastructure would be **less than significant with mitigation incorporated**.

Telecommunications

Telecommunications infrastructure—fiber-optic cable for data, phone and cable television service—would be routed through the utilidor and would connect to all proposed buildings,

as shown in Chapter 2, Figure 2-9. In addition, underground telecommunications infrastructure under South Montgomery Street and Park Avenue associated with the AT&T service center at 145 South Montgomery Street may need to be relocated based on the utilidor alignment. The construction and relocation of telecommunications infrastructure would be included as part of the proposed utilidor, which is analyzed in this draft EIR. Therefore, with implementation of the mitigation measures listed under Impact UT-1, impacts related to new or relocated telecommunications infrastructure would be **less than significant with mitigation incorporated**.

Mitigation: Refer to the list of mitigation measures under Impact UT-1.

Significance after Mitigation: Less than significant. Although the proposed project as a whole would result in significant and unavoidable construction-related air quality and noise impacts, construction work involving utilities is included in the overall construction analysis. The utility construction work would be responsible for a small portion of these project impacts. Therefore, for construction related to utilities, the impact would be less than significant with mitigation incorporated.

Cumulative Impacts—Other Utilities

The cumulative geographic context for other utilities considers development of the project, including cumulative projects in the city of San José and the service areas of the local utility providers. The cumulative projects that are considered in this analysis (past, approved, pending, and under construction) are included in Chapter 3, Figure 3-1, and in Appendix B, Table B-1.

Impact C-UT-4: 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 electric power, natural gas, or telecommunications systems. *(Less than Significant)*

Electric Power, Natural Gas, and Telecommunications Infrastructure

The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, could result in the construction of new or expanded electric power, natural gas, or telecommunications facilities as a result of increased demands for service. The 2040 General Plan and Downtown Strategy 2040 EIRs concluded that, with implementation of existing programs, regulations, and General Plan policies, planned growth would not result in a significant impact associated with the construction of additional utilities infrastructure.[84][85]

Development of the proposed project may exceed the growth anticipated in the General Plan and the Downtown Strategy 2040 (refer to Section 3.11, *Population and Housing*) for the Downtown area. In addition, the proposed amendments to the DSAP would increase density beyond what was previously considered for the plan area. The cumulative increase in density could result in the need for additional infrastructure improvements in the Downtown area. However, as discussed in

84 City of San José, *Envision San José 2040 General Plan Draft Program EIR*, June 2011.
85 City of San José, *Downtown Strategy 2040 Integrated Final EIR*, December 2018.

Impact UT-6, the proposed project includes a suite of electric power, natural gas, and telecommunications infrastructure improvements to serve the project site, the construction of which would not result in significant impacts. Therefore, the proposed project would not contribute considerably to a significant cumulative impact in this regard. Impacts would be **less than significant**.

Mitigation: None required.

Solid Waste

3.14.13 Environmental Setting

Solid Waste

The City's Environmental Services Department (ESD), Integrated Waste Management Division, supports solid waste collection, processing, and disposal for residential, commercial, and City facility operations. The ESD provides recycling and garbage services to nearly 326,000 residential households in San José through contracted service providers.[86] Residential waste, including for multi-family households, is managed through the Recycle Plus program, which includes curbside garbage and recycling collection, collection of yard trimmings, street sweeping, and garbage processing provided by four contractors in three service areas. Materials not sent to a landfill include recyclables and organics (yard trimmings and organics extracted from garbage processing sent to a composting facility).

The commercial waste management system is a three-way collaboration between the City, Republic Services, and Zero Waste Energy Development Company (ZWED). Republic Services owns and operates a material recovery facility (MRF), and ZWED owns and operates a commercial-scale dry anaerobic digestion facility. Republic Services processes the material collected from commercial businesses to remove recyclables before any portion is sent to a landfill. Republic Services collects organic waste from commercial businesses and delivers the organics to the ZWED facility for processing into energy and compost.

The ESD manages non-exclusive franchise agreements with, as of August 1, 2020, 30 construction and demolition (C&D) debris haulers to provide temporary drop-box and debris collection services for new construction, remodeling, and demolition projects and residential clean-outs. C&D is the largest component of the City's overall waste stream by weight, partly because C&D waste is composed of heavy materials (e.g., concrete, asphalt), which do not break down in the same way as other waste, and thus take up more volume.

San José is unique in the amount of solid waste facility infrastructure located within its city limits. Three MRFs used for the city's residential and commercial material are located in north San José. As of July 1, 2020, 11 out of the total 19 City-certified C&D waste facilities are located in San José, and recycle 75 percent of C&D debris produced in the city. Lastly, multiple landfills serve the city.[87] However, the City must use the Newby Island Landfill for residential, commercial, and City waste streams:[88]

- **Newby Island Landfill** receives a maximum of 4,000 tons per day of solid waste for disposal (including C&D and municipal waste), has approximately 21,200,000 cubic

[86] City of San José, *City of San José Annual Report on City Services 2018–19*, December 2019. Available at https://www.sanjoseca.gov/home/showdocument?id=49148. Accessed January 16, 2020.
[87] City of San José, *Status Report on Zero Waste Strategic Plan 2022*, February 15, 2017. Available at http://sanjose.granicus.com/MetaViewer.php?meta_id=619657. Accessed October 10, 2019.
[88] Peggy Horning, personal communication with Environmental Services Department District Systems, City of San José, December 17, 2019.

yards (29,680,000 tons) of remaining capacity, and is estimated to remain in operation until 2041.[89,90] This landfill is located at the western terminus of Dixon Landing Road in San José, approximately 8.5 miles north of the project site.

- **Guadalupe Landfill** receives a maximum of 1,300 tons per day of solid waste for disposal (including C&D and municipal waste), has approximately 11,055,000 cubic yards of remaining capacity, and is estimated to reach permitted disposal capacity by the year 2048.[91,92] This landfill is located southeast of the town of Los Gatos, approximately 8 miles south of the project site.
- **Kirby Canyon Landfill** receives a maximum of 2,600 tons per day of solid waste for disposal (including C&D and municipal waste), has approximately 16,191,600 cubic yards of remaining capacity, and is anticipated to close in 2044.[93,94] This landfill is located in the town of Morgan Hill, approximately 16 miles southeast of the project site. However, the Kirby Canyon Landfill is not a City certified C&D waste facility.
- **Zanker Material Processing Facility** is a C&D materials recovery facility. Landfilled or buried tonnage is limited to a maximum of 350 tons per day. The facility has approximately 640,000 cubic yards of remaining capacity, and is estimated to close in 2025.[95,96] This facility is located across from the SJ-SC RWF, approximately 8 miles north of the project site.

3.14.14 Regulatory Framework

State

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

89 California Department of Resources Recycling and Recovery, SWIS Facility Detail: Newby Island Sanitary Landfill (43-AN-0003). Available at https://www2.calrecycle.ca.gov/SWFacilities/Directory/43-AN-0003/Detail. Accessed October 11, 2019.

90 SWT Engineering, *Newby Island Sanitary Landfill Partial Final Closure/Post-Closure Maintenance Plan*, November 2015. Available at https://www2.calrecycle.ca.gov/swfacilities/Document/GetDocument/299964. Accessed October 11, 2019.

91 California Department of Resources Recycling and Recovery, SWIS Facility Detail: Guadalupe Sanitary Landfill (43-AN-0015). Available at https://www2.calrecycle.ca.gov/swfacilities/Directory/43-AN-0015. Accessed October 11, 2019.

92 California Department of Resources Recycling and Recovery, *Guadalupe Landfill, City of San José (43-AN-0015), Preliminary Closure & Postclosure Maintenance Plan Technical Adequacy*, June 19, 2017. Available at https://www2.calrecycle.ca.gov/swfacilities/Directory/43-AN-0015/Document. Accessed October 11, 2019.

93 California Department of Resources Recycling and Recovery, SWIS Facility Detail: Kirby Canyon Recycl. & Disp. Facility (43-AN-0008). Available at https://www2.calrecycle.ca.gov/swfacilities/Directory/43-AN-0008. Accessed October 11, 2019.

94 California Department of Resources Recycling and Recovery, *Kirby Canyon Landfill, City of San José (43-AN-0008), Preliminary Closure and Postclosure Maintenance Plans Review Comments*, August 9, 2019. Available at https://www2.calrecycle.ca.gov/swfacilities/Directory/43-AN-0008/Document. Accessed October 11, 2019.

95 California Department of Resources Recycling and Recovery, SWIS Facility Detail: Zanker Material Processing Facility (43-AN-0001). Available at https://www2.calrecycle.ca.gov/swfacilities/Directory/43-AN-0001. Accessed October 11, 2019.

96 California Department of Resources Recycling and Recovery, *Revised Solid Waste Facility Permit, Zanker Material Processing Facility*, January 6, 2015. Available at https://www2.calrecycle.ca.gov/swfacilities/Directory/43-AN-0001/Document. Accessed October 11, 2019.

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.

California Green Building Standards Code

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 and non-residential buildings. The CALGreen Code also requires that residential and non-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). San José has adopted a more stringent requirement, mandating 75 percent diversion for projects that qualify under CALGreen. In addition, 100 percent of trees, stumps, rocks, and associated vegetation and soils resulting primarily from land clearing must be reused or recycled unless contaminated by disease or pest infestation (Section 5.408.3).

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 Bills 341 and 1826

AB 341, signed into law in 2012, requires commercial and multi-family dwellings to recycle. AB 1826 (2014) furthered diversion and recycling requirements by requiring that all businesses and 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.

Local

Envision San José 2040 General Plan

The General Plan contains the following relevant policies related to solid waste:

> **Policy IN-5.1:** Monitor the continued availability of long-term collection, transfer, recycling and disposal capacity to ensure adequate solid waste capacity. Periodically assess infrastructure needs to support the City's waste diversion goals. Work with private Material Recovery Facilities (MRF) and Landfill operators to provide facility capacity to implement new City programs to expand recycling, composting and other waste processing.
>
> **Policy IN-5.3:** Use solid waste reduction techniques, including source reduction, reuse, recycling, source separation, composting, energy recovery and transformation of solid wastes to extend the life span of existing landfills and to reduce the need for future landfill facilities and to achieve the City's Zero Waste goals.
>
> **Policy IN-5.4:** Support the expansion of infrastructure to provide increased capacity for Materials Recovery Facilities (MRF)/transfer, composting, and Construction and Demolition materials processing (C&D) at privately operated facilities and on lands under City control to provide increased long-term flexibility and certainty.
>
> **Policy IN-5.13:** Designate no new candidate landfill sites until the need for additional landfill capacity has been established. Source reduction, recycling/composting alternatives, and waste conversion should be taken into account when evaluating the need for a landfill.
>
> **Policy IN-5.15:** Expand the capacity of existing landfill sites as the preferred method for increasing the City's landfill capacity and monitor the continued availability of recycling, resource recovery and composting capacity to ensure adequate long term capacity.

Urban Environmental Accords

On November 1, 2005, the San José City Council signed on to the Urban Environmental Accords, a declaration of participating city governments to build ecologically sustainable, economically dynamic, and socially equitable futures for their urban citizens. The Urban Environmental Accords include 21 actions in seven different areas such as energy, waste, and urban nature. The actions that relate to solid waste are:

- Establish a policy to achieve zero waste to landfills and incinerators by 2040.
- Adopt a citywide law that reduces the use of a disposable, toxic, or non-renewable product category by at least 50 percent in 7 years.
- Implement "user-friendly" recycling and composting programs, with the goal of reducing by 20 percent per capita solid waste disposal to landfill and incineration in 7 years.

Construction and Demolition Diversion Deposit Program

Chapter 9.10 of the San José Municipal Code outlines solid waste management regulations in the City. Chapter 9.10, Part 15, establishes the City's Construction and Demolition Diversion Deposit Program, which uses financial incentives to encourage the recycling of C&D material and requires projects to divert 50 percent of the total projected waste. Under the program, developers pay a deposit when they apply for a construction permit with the City. The deposit is fully refundable if C&D materials were reused, donated, or sent to a City-certified processing facility.

San José Zero Waste Strategic Plan

On October 30, 2007, the San José City Council adopted Resolution 74077, which established a goal to reduce the amount of material being sent to landfills by 75 percent by 2013, and a goal of zero waste by 2022. In San José, "zero waste" is defined as landfilling no more than 10 percent of waste, or recycling 90 percent. To help reach the waste reduction goals, the City developed a Zero Waste Strategic Plan that identifies policies, programs, and facilities to be implemented in a phased approach in the short and long terms. In 2013, approximately 73 percent of the waste generated was diverted from landfill disposal through programs that include residential curbside recycling and yard trimmings collection programs, City facilities recycling, and the Construction & Demolition Diversion Deposit program.[97]

Climate Smart

Climate Smart San José, adopted by the City Council in 2018, lays out how the City is doing its part to address climate change. The plan is a community-wide initiative to reduce air pollution, save water, and improve quality of life. The plan uses the best data available to chart an economy-wide strategy that is aligned with the decarbonization goals of the Paris Agreement. The plan focuses on nine key strategies:

- Transition to a renewable energy future.
- Embrace our Californian climate.
- Densify our City to accommodate our future neighbors.
- Make homes efficient and affordable for our families.
- Create clean, personalized mobility choices.
- Develop integrated, accessible public transport infrastructure.
- Improve our commercial building stock.
- Make commercial goods movement clean and efficient.
- Create local jobs in our City to reduce vehicle miles traveled.[98]

[97] City of San José, Green Vision Goals, Zero Waste. Available at https://www.sanjoseca.gov/home/showdocument?id=21999. Accessed January 23, 2020.
[98] City of San José, *Climate Smart San José: A People-Centered Plan for a Low-Carbon City*. Available at https://www.sanjoseca.gov/your-government/environment/climate-smart-san-jos. Accessed January 23, 2020.

Permitting of Automatic Waste Collection System

To comply with Public Resources Code Sections 44001 and 44002, each automatic collection system terminal would require a CalRecycle Full Permit as a waste transfer station. CalRecycle's local enforcement agency is housed in the Planning, Building, Code Enforcement offices of San José's city hall.

Because the waste collection system would be a pneumatic system, coordination with the California Air Resources Board (CARB) is recommended. The local representative of CARB is BAAQMD. The following permits may be required in consultation with BAAQMD:

- **Authority to Construct (A/C)**—This is a pre-construction permit that is issued before equipment is installed. An A/C may require the permit holder to meet certain conditions before operation can begin.
- **Permit to Operate (P/O)**—This permit allows the holder to operate (use) all equipment or activities listed on the permit.
- **Certificate of Registration**—This type of permit is given to specific types of equipment or activities that are smaller in nature.
- **Certificate of Exemption**—Upon request, this type of document is issued if the specific type of equipment or activity does not require an air district permit.
- **Register Equipment**—Owners of certain types of small source equipment such as smaller boilers, steam generators, and process heaters, and charbroilers at commercial cooking operations may be eligible to apply for a renewable registration certificate instead of a permit.

3.14.15 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this EIR, an impact related to solid waste would be significant if implementing the proposed project would:

- 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
- Fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

Approach to Analysis

This analysis identifies the potential impacts of construction and operation of the proposed project as they relate to solid waste generation and facilities. Information about proposed infrastructure used throughout the analysis is sourced from the *Google Downtown West Infrastructure Plan*, prepared by Arup, Lendlease, and Sherwood Design Engineers (October 7, 2020).

Impact Analysis—Solid Waste

Impact UT-7: The proposed project would not generate solid waste in excess of state or local standards or of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. *(Less than Significant)*

The proposed project would generate solid waste during both construction and operation. During construction, the project would generate construction-related debris. During operation, the project's residential and commercial uses would result in an increase in the demand for solid waste services.

Construction

As described in Section 3.14.14, *Regulatory Framework*, the City's Construction and Demolition Diversion Deposit Program—a key strategy in the City's Zero Waste Strategic Plan—requires projects to achieve a 50 percent recycling rate. In addition, the City of San José requires the proposed project 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 in the Bay Area.

The Newby Island Landfill, Guadalupe Landfill, and Zanker Material Processing Facility are all certified under the City's Program to process mixed construction and demolition waste. The remaining residue from the materials that could not be recovered are landfilled. The landfills in San José have an estimated combined remaining capacity of approximately 33 million cubic yards, and all but the Zanker Material Processing Facility have an estimated closure date beyond 2040. The City must use the Newby Island Landfill for residential, commercial, and City waste streams. This landfill has approximately 21,200,000 cubic yards (29,680,000 tons) of remaining capacity, including enough capacity to serve the project's solid waste stream. Project construction is not expected to generate substantial amounts of solid waste relative to the remaining capacity of the Newby Island Landfill.

To comply with City of San José requirements, this project would be required to develop a construction waste management plan and divert at least 75 percent of the solid waste generated during the new building construction phase. If prior to erecting a new building, demolition activity would occur, 50 percent diversion is required. The construction and demolition waste would be processed at a mixed C&D City-certified facility which would dispose of the leftover residue.

Construction of the proposed 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. This impact would be **less than significant**.

Operation

During operation of the proposed project, the project's up to 5,900 residential units, 1,100 hotel and limited term corporate accommodation rooms, and 31,198 potential employees would generate solid waste. **Table 3.14-1** presents the estimated solid waste generation for the proposed project, based on estimates used in the 2040 General Plan EIR, collected by CalRecycle, and provided by

the City's ESD. Conservatively using the maximum number of residential units and the maximum employment estimates, the residential uses and non-residential uses would generate up to approximately 5,829 tons and 10,300 tons of waste per year, respectively, for a total of approximately 16,129 tons of solid waste per year, using generation factors from the General Plan. These rates do not capture the diversion of materials that would occur through recycling or composting, as waste generation typically includes all materials discarded, whether or not they are later recycled or disposed in a landfill. However, these rates are used to conservatively estimate the impact of the project on the local waste stream.[99]

TABLE 3.14-1
PROPOSED PROJECT SOLID WASTE GENERATION

	Generation Rate	Units	Estimated Waste Generated (tons/year)
Land Use			
Residential	38 pounds per household per week[a]	5,900 households[b]	5,829
Office[c]	1.24 pounds per employee per day[d]	29,280 employees	6,626
Retail[e]	10.53 pounds per employee per day[d]	1,038 employees	1,995
Institutional[f]	3.55 pounds per employee per day[d]	130 employees	84
Industrial (Central Utilities Plant)	8.93 pounds per employee per day[d]	130 employees	212
Logistics/Warehouse & Event/Conference Center	13.82 pounds per employee per day[g]	230 employees	580
Hotel/Limited-term Corporate Accommodation	4 pounds per room per day[g]	1,100 rooms	803
Total	**—**	**—**	***16,129 tons***

NOTES:
[a] Rate provided by the City's ESD.
[b] Represents the maximum number of residential units considered for the project.
[c] Includes office uses and co-working/small neighborhood office uses (including non-profit organizations).
[d] Based on various rates for industrial (8.93 pounds/employees/day), office (1.24 pounds/employees/day), retail (10.53 pounds/employees/day), and institutional (3.55 pounds/employees/day) uses contained in the 2040 General Plan EIR.
[e] Includes retail and restaurant/bar/nightlife uses.
[e] Includes office uses and co-working/small neighborhood office uses (including non-profit organizations).
[f] Includes education, fitness, arts and cultural, and theater uses.
[g] Based on solid waste generation rates collected by the California Department of Resources Recycling and Recovery.

SOURCES:
City of San José, *Envision San José 2040 General Plan Draft Program Environmental Impact Report*, June 2011.
California Department of Resources Recycling and Recovery, Estimated Solid Waste Generation Rates. Available at https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates. Accessed July 1, 2020.

[99] The greenhouse gas analysis in Section 3.6 of this EIR uses somewhat different solid waste generation factors, based on the CalEEMod air quality model, to arrive at a result of about 8,750 tons per year (46 percent less than given here), and also incorporates a diversion rate of 84 percent based on Google-specific data, as included in the project's AB 900 application for certification as an environmental leadership development project (*Development Project Application for the Downtown West Mixed-Use Plan*, Appendix C1, *Analysis of GHG Impacts for the Downtown West Mixed-Use Plan*, Table 22, *Solid Waste Landfill Annual Generation*, Final Draft, August 23, 2019. Available at http://opr.ca.gov/ceqa/docs/ab900/20190903-DWSJ_AB900_Application_Appendices.pdf). The 84 percent diversion rate is higher than the 66 percent diversion rate achieved citywide in 2015 (City of San José, Staff Memorandum: Status Report on Zero Waste Strategic Plan 2022, February 15, 2017. Available at http://sanjose.granicus.com/metaviewer.php?meta_id=619657); however, it is reasonable given that a closed environment such as a corporate campus—by far, the largest component of the proposed project—is more susceptible than a conventional environment to on-site source separation and diversion through recycling and composting. The resulting total solid waste generation is approximately 1,400 tons per year, a number that more likely represents the project's estimated solid waste generation than the conservative estimate used in this section.

The proposed project may include a centralized solid waste collection system, including on-site collection and sorting of solid waste, recyclables, and other discarded material before off-hauling. The project may also include automatic waste collection, which could involve a pressurized below-grade pneumatic pipe that would transport disposed materials from various locations on the project site to a collection and sorting facility within the infrastructure zones, allowing the efficient processing of solid waste.[100] Individual buildings would connect to the main automatic waste collection pipe via below-grade laterals. Other residual waste streams, such as large or bulky items, not transported by the automatic waste collection system would be collected by a vehicle from each building. The automatic waste collection system would support up to three waste streams, the specifics of which remain flexible. One option for the three waste streams is wet, dry, and source-separated recycling. These streams would support existing local waste collection procedures, while preserving the option for on-site anaerobic digestion. The system could also support other three-stream combinations, such as solid waste, mixed recycling, and compost.

Compliance with existing policies and regulations, including the CALGreen Code's building requirements, would reduce non-renewable sources of solid waste; would minimize the project's solid waste disposal to the extent feasible; would not impede the City from meeting waste diversion requirements; and would not cause the City to violate other applicable federal, state, and local statutes and regulations related to solid waste. Impacts would be less than significant. The City must use the Newby Island Landfill for residential, commercial, and City waste streams. This landfill has approximately 21,200,000 cubic yards (29,680,000 tons) of remaining capacity, including enough capacity to serve the project's solid waste stream through at least 2041. Therefore, operation of the proposed project would not generate solid waste in excess of the local infrastructure, and would not impair the attainment of state-level or local waste reduction goals. This impact would be **less than significant**.

Mitigation: None required.

Impact UT-8: The proposed project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste. *(Less than Significant)*

During construction and operation, the proposed project would be required to comply with the state and local solid waste standards identified in Section 3.14.14, *Regulatory Framework*, such as the California Integrated Waste Management Act, AB 939, the CALGreen Code, AB 341 and AB 1826, SB 1383, and the City of San José Zero Waste Strategies Plan.

As described in Impact UT-4, project construction would comply with state and local requirements for management of construction and demolition waste. The proposed project would comply with state-level recycling requirements during project operation. Republic Services' and ZWED's processing (described in Section 3.14.13, *Environmental Setting*) keeps the City's businesses compliant with state-mandated recycling requirements (AB 341 and AB 1826),

[100] The exclusive franchisee commercial hauler may have the exclusive right to this material per Chapter 9.10.1600 of the San José Municipal Code.

including recycling of organics, and furthers the City's sustainability goals. The City's Recycle Plus program for residents also includes garbage processing, which extracts residual recyclables and organics from solid waste before landfilling.[101] In addition, the proposed project's centralized solid waste collection system would include on-site collection and sorting of solid waste, recyclables, and other discarded material before off-hauling.

As a result, the proposed project would not conflict with state or local waste reduction policies, including the City's Zero Waste Strategic Plan. Therefore, the impact of the proposed project with regard to compliance with solid waste regulations would be **less than significant**.

Mitigation: None required.

Cumulative Impacts—Solid Waste

The cumulative geographic context for utilities and service systems considers development of the project, including cumulative growth in the city of San José and the service areas of the local utility providers. This analysis considers projected growth of development under the City's General Plan.

Impact C-UT-5: 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 related to solid waste. ***(Less than Significant)***

The proposed project, in combination with past, present, existing, approved, pending, and reasonably foreseeable future projects in the vicinity, would generate solid waste. According to the 2040 General Plan EIR, development under the General Plan (including the level of employment and population growth proposed for the project and proposed amendments to the Diridon Station Area Plan) would not exceed the capacity of the existing Newby Island Landfill, which serves the City; the City would avoid estimated increases in solid waste generation from such development by implementing its Zero Waste Strategic Plan. Therefore, the cumulative impact is less than significant. As discussed under Impacts UT-4 and UT-5, construction and operation of the proposed project would not generate solid waste in excess of the local infrastructure; would not impair the attainment of state or local waste reduction goals; and would comply with federal, state, and local management and reduction statutes and regulations related to solid waste. Therefore, the proposed project would not contribute considerably to a significant cumulative impact with regard to solid waste, and impacts would be **less than significant**.

Mitigation: None required.

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[101] City of San José, *Status Report on Zero Waste Strategic Plan 2022*, February 15, 2017. Available at http://sanjose.granicus.com/MetaViewer.php?meta_id=619657. Accessed October 10, 2019.