3.8 Hydrology and Water Quality

This section describes existing hydrology and water quality in the project vicinity, including wastewater and stormwater management, existing and future flooding, and groundwater conditions; explains the existing regulatory framework governing these topics; and discusses potential construction-related and operational impacts of the proposed project. Mitigation measures are provided to avoid or reduce significant impacts, as appropriate. The impact assessment evaluates water quality issues related to both construction activities and operation of the proposed project.

3.8.1 Environmental Setting

Regional and Local Hydrology

The city of San José is located in the Santa Clara Valley between the Santa Cruz Mountains to the west and the Diablo Range to the east. The climate in this region is characterized by coastal and bay influences, with mild to moderate temperatures year-round. The region averages approximately 14.5 inches of rain per year, with rainfall generally occurring between October and May, as typical for California's Mediterranean climate.[1]

The project site is located within the Guadalupe watershed in western San José. This watershed encompasses approximately 171 square miles, from the headwaters in the eastern Santa Cruz Mountains near the summit of Loma Prieta through the Santa Clara Valley to South San Francisco Bay. Surface waters within the Guadalupe watershed include the tributaries and mainstem of the Guadalupe River. The river begins at the confluence of Alamitos Creek and Guadalupe Creek in the Almaden/Alamitos area of San José and flows north for 14 miles through the cities of San José, Campbell, and Santa Clara before reaching lower South San Francisco Bay, via Alviso Slough.

The Guadalupe River and Los Gatos Creek are perennial waterways that flow south to north, just east of the project's development boundary. Los Gatos Creek crosses the southernmost portion of the project site and then continues north along the east side of the project site. Land use in the upper watershed is characterized by heavy forests with pockets of residential parcels. Residential density increases to high density on the valley floor, mixed with commercial, urban, and industrial uses in San José and its surrounding municipalities. Existing impervious (paved) surfaces in San José contribute to conditions of rapid runoff and periodic flooding during storms. The existing site is approximately 97 percent impervious as a result of existing land uses, which include industrial and commercial development with many large asphalt parking lots and minimal existing landscaped areas. Under existing conditions, stormwater runoff from the project site is not treated before its discharge to the City's collection network.[2]

[1] Western Regional Climate Center, Period of Record Monthly Climate Summary, San Jose, California (047821), January 1, 1893, to June 6, 2016. Available at https://wrcc.dri.edu/cgi-bin/cliRECtM.pl?ca7821. Accessed September 9, 2019.

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

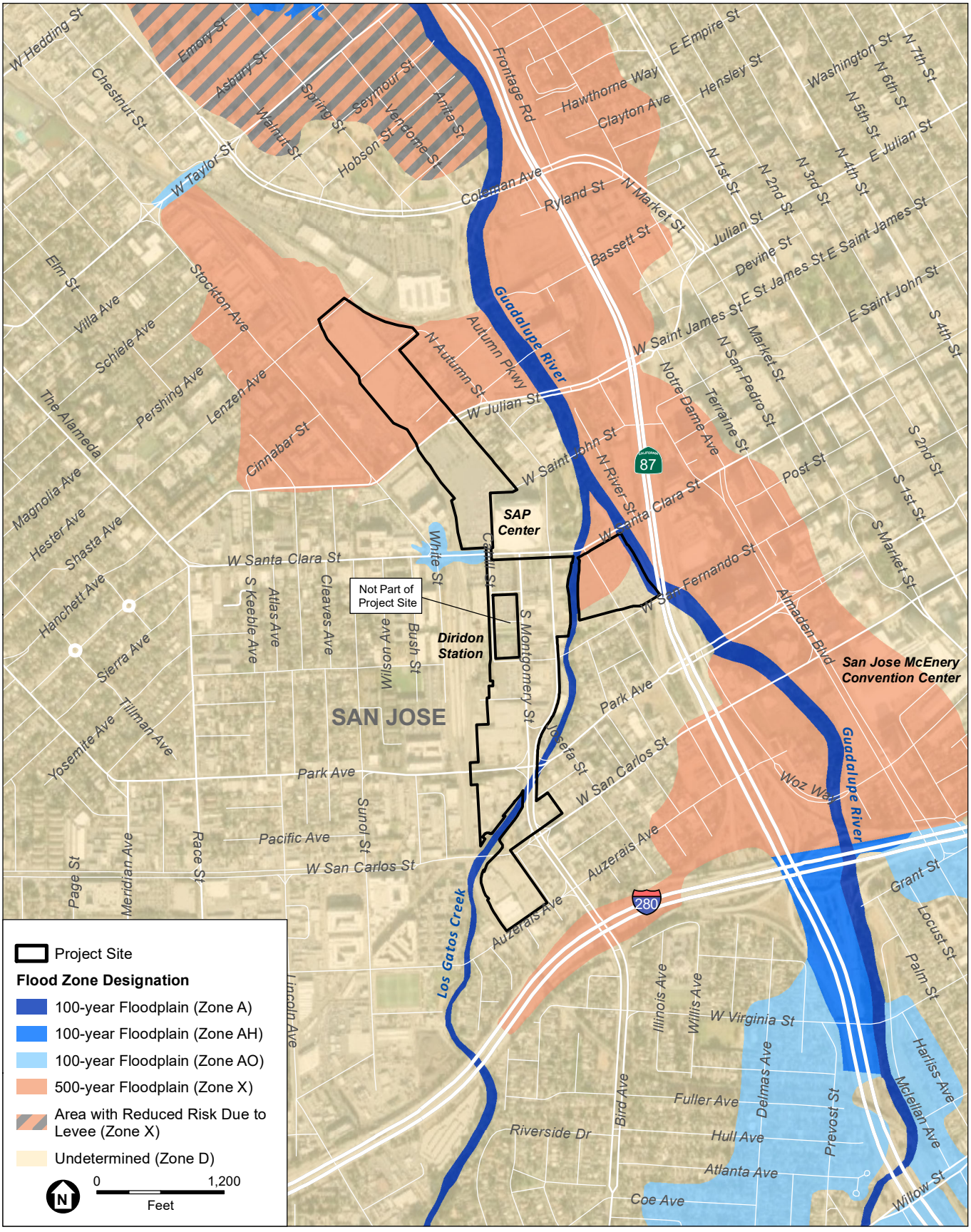
Los Gatos Creek, the largest tributary, connects to the Guadalupe River approximately 3.5 miles downstream of the river's origin and crosses through Santa Clara County land, the towns of Monte Sereno and Los Gatos, and the cities of Campbell and San José. Los Gatos Creek has been described as one of the few urban streams in the Santa Clara Valley that remains relatively intact, and serves as a riparian corridor and a network of flood protection for San José.[3] Under existing conditions, the channel of Los Gatos Creek (in reaches between the West Santa Clara Street bridge and the West San Carlos Street bridge) contains large invasive trees and shrubs, as well as logjams, trash, and other debris that constrain floodwater conveyance during storms. The existing West San Fernando Street bridge contains in-stream support piers that also contribute to displacement of flow, as floodwaters periodically overtop Los Gatos Creek.[4] **Figure 3.8-1** shows surface waters and flood hazard areas in the vicinity of the project site.

Groundwater Hydrology

The project site is located in the Santa Clara Groundwater Basin, Santa Clara Subbasin (Basin 2.9-02), which has been identified as a high-priority basin under the Sustainable Groundwater Management Act (SGMA).[5] In normal rainfall years, about 50 percent of Santa Clara County's water supply is provided locally, primarily from groundwater. Municipal water supplied to Downtown San José draws mainly from groundwater, which is generally more available in the Santa Clara Valley than elsewhere in the county.[6] In drought years, however, up to 90 percent of the water has been imported to serve municipal demand.[7] Groundwater has been encountered at depths of 15.1 to 20.9 feet north of West Santa Clara Street,[8] and at 25 feet below the ground surface in the southern portion of the project site near Auzerais Avenue.[9]

Groundwater in the Santa Clara Subbasin is of generally good quality. Key issues of concern in the subbasin are land subsidence caused by past groundwater overdraft, and saline intrusion into groundwater through tidal channels near southern portions of San Francisco Bay. For additional discussion of water quality, refer to Section 3.8.2, *Regulatory Framework.*

3 Santa Clara County Parks, Los Gatos Creek County Park. Available at https://www.sccgov.org/sites/parks/parkfinder/Pages/LosGatosCreek.aspx. Accessed October 17, 2019.
4 Schaaf & Wheeler, *Google San Jose Hydrology and Flood Control Measures,* August 2020.
5 California Department of Water Resources, *Sustainable Groundwater Management Act 2019 Basin Prioritization: Process and Results*, May 2020. Available at https://water.ca.gov/Programs/Groundwater-Management/Basin-Prioritization. Accessed May 14, 2020.
6 Santa Clara Valley Water District, *Annual Groundwater Report for Calendar Year 2018*, 2018. Available at https://www.valleywater.org/sites/default/files/2020-03/2018%20Annual%20Groundwater%20Report_Final-Web%20Version.pdf. Accessed September 9, 2019.
7 City of San José, *Envision San José 2040 General Plan*, adopted November 1, 2011 (amended March 16, 2020). Available at https://www.sanjoseca.gov/home/showdocument?id=22359. Accessed January 16, 2020.
8 City of San José, *San José Arena (SAP Center) Third Five Year Review*, Appendix B, *Groundwater Monitoring Report*, August 2018.
9 Georestoration Inc., *Remediation Progress Report First Quarter 2019, 638 Auzerais Avenue San José*, SCCDEH Case No. 12-023, April 30, 2019.



SOURCES: Esri, 2019, City of San Jose, 2019, FEMA, 2018; ESA, 2020

Downtown West Mixed-Use Plan

Figure 3.8-1
Surface Waters and Flood Zones in the Project Vicinity

Flood Zone

According to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs), the majority of the project site is located in Zone D, classified by FEMA as an "area of undetermined but possible flood hazards" (refer to Figure 3.8-1). Storm-related flooding (from the overtopping of creeks and storm drains) is the type of flooding most likely to affect the project site. The project proposes land uses on more than 20 acres in areas of moderate flood risk, labeled Zone X. These are areas between the limits of the 1-percent-annual-chance (or "100-year") flood, which FEMA refers to as the "other flood areas," with average depths of less than 1 foot or with drainage areas less than 1 square mile, and the 0.2-percent-annual-chance (or "500-year") flood zone. A small area of the project site, east of the intersection of Stockton and Santa Clara Streets, lies within a special flood hazard area that is subject to inundation by a 1-percent-annual-chance flood. This area is classified by FEMA as Zone AO, a flood zone with potential flood depths of 1 to 3 feet (usually sheet flow on sloping terrain).[10] Finally, as shown on Figure 3.8-1, about 1.16 acres of the site in the floodplain of Los Gatos Creek south of Park Avenue and north of West San Carlos Street and the floodplain of the Guadalupe River between West Santa Clara and West San Fernando Streets are within FEMA Zone A (areas within a 100-year floodplain but for which no detailed hydraulic analyses have been performed; therefore, no base flood elevations or flood depths are provided by FEMA).

Table 3.8-1 quantifies the acreage of the project site that is located within FEMA flood zones.

TABLE 3.8-1
AREAS OF THE PROJECT SITE WITHIN A FLOOD ZONE

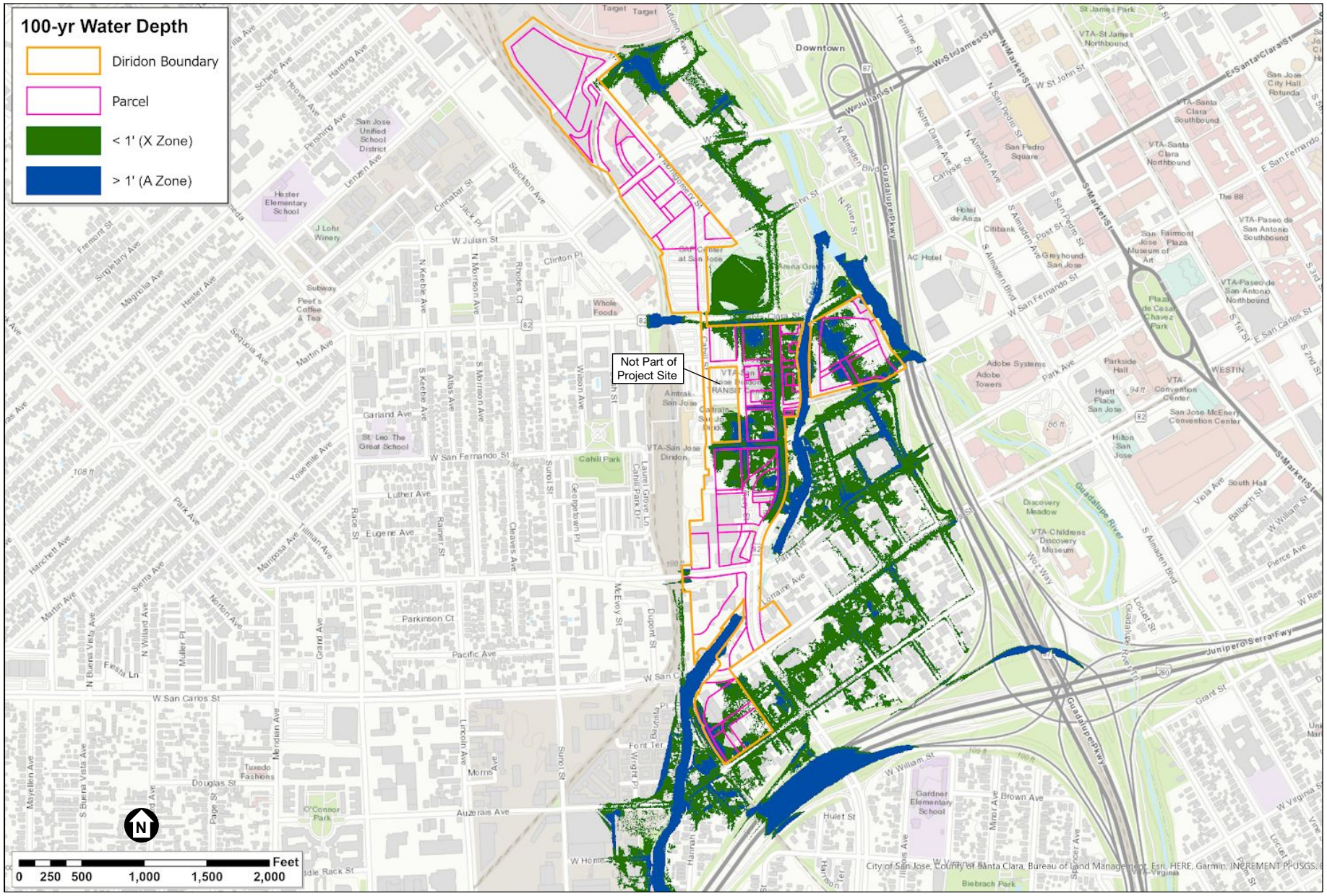
Flood Zone Designation	Acreage of Project Site within Flood Zone
Zone A: 100-year floodplain	1.16 acres
Zone AH: 100-year floodplain	0 acres
Zone AO: 100-year floodplain	0.04 acres
Zone X: 500-year floodplain	22.12 acres
Zone D: Undetermined flood risk zone	58.26 acres
	Total project area: 81.58 acres

SOURCE: Federal Emergency Management Agency, *Flood Insurance Mapping Program*, map revisions through March 7, 2019; FEMA Flood Zone designations; mapped areas compiled from the National Flood Hazard Layer (NFHL). Available at http://www.fema.gov/national-flood-hazard-layer-nfhl. Accessed October 9, 2019.

To assess site-specific flood hazards under a development scenario, the Santa Clara Valley Water District (Valley Water) developed a two-dimensional hydraulic HEC-RAS model of Los Gatos Creek, which represents the best available floodplain data applicable to analysis of the proposed project. The model provides a detailed analysis of locations that could experience increased flood depths (under a development scenario) and identifies a deficiency of channel capacity resulting from overbank flooding during the 100-year event not identified in the FEMA FIRM (refer to **Figure 3.8-2**).[11]

[10] Federal Emergency Management Agency, *National Flood Insurance Program Flood Insurance Rate Map, Santa Clara County, California, and Incorporated Areas*, Panel 234, effective May 18, 2009. Available at https://msc.fema.gov/portal/search?AddressQuery=Santa%20Clara%20County#searchresultsanchor. Accessed September 2019.

[11] Schaaf & Wheeler, *Google San Jose Hydrology and Flood Control Measures*, August 2020.



SOURCES: Valley Water, Schaaf & Wheeler, 2020

Downtown West Mixed-Use Plan

Figure 3.8-2
Valley Water Best Available 100-year Floodplain Map

Dam Inundation

Most of Downtown San José, including the project site, lies within a dam failure inundation zone for one or more reservoirs, notably Anderson Reservoir (19 miles southeast of the project site) and Lenihan (Lexington) Dam (10 miles southwest of the project site), both owned and managed by Valley Water.[12] Two flooding scenarios are presented and defined in the dam failure inundation maps prepared by Valley Water. The "fair weather" scenario assumes a dam failure occurring during non-storm conditions; the "inflow design flood" scenario assumes a dam failure occurring under a large storm event with high pool elevations in the reservoir and high-flow conditions downstream.

Valley Water is currently engaged in a seismic retrofit of Anderson Dam, which involves sharply reducing the amount of water that can be stored in the reservoir while the seismic retrofit is in progress. The Federal Energy Regulatory Commission and the California Division of Safety of Dams have approved the storage restriction, allowing Anderson Reservoir to fill up to 58 percent of capacity to prevent an uncontrolled release of water in the event of seismic failure.[13]

Lenihan Dam at Lexington Reservoir was built with a spillway that conveys flows downstream to Los Gatos Creek during storms. A seismic evaluation of Lenihan Dam, which was corroborated by the California Division of Safety of Dams, concluded that the dam was built on bedrock and would perform well when subjected to ground motion at Maximum Credible Earthquake levels.[14]

Tsunami and Seiche

Tsunamis are ocean waves generated by vertical movement of the sea floor, normally associated with earthquakes or volcanic eruptions. *Seiches* are oscillations of enclosed or semi-enclosed bodies of water that result from seismic events, wind stress, volcanic eruptions, underwater landslides, and local basin reflections of tsunamis. The project site is not located in a coastal area subject to tsunami or seiche.[15]

Stormwater Management

The City of San José manages stormwater runoff—rainwater that flows across impervious surfaces and is not absorbed into the soil—through the storm sewer system, a network of storm drainages that consists of inlets, manholes, pipes, outfalls, channels, and pump stations. Stormwater is collected through storm drains, conveyed through pipes and channels, and discharged to receiving waters through outfalls. The project area includes 3.5 miles of backbone storm drain pipe (18 inches in diameter or larger) with five outfalls extending to the Guadalupe

[12] Santa Clara Valley Water District, Dam Failure Inundation Maps, Leroy Anderson Dam, scale 1" = 40,000', April 2016. Available at https://www.valleywater.org//sites//default//files//Anderson%20Dam%20Inundation%20Maps%202016.pdf. Accessed October 2, 2019.

[13] Santa Clara Valley Water District, Anderson Dam Seismic Retrofit Project: About this Project. Available at https://www.valleywater.org/anderson-dam-project. Accessed April 30, 2020.

[14] Santa Clara Valley Water District, *Seismic Stability Evaluations of Chesbro, Lenihan, Stevens Creek, and Uvas Dams (SSE2),* Compilation Report No. SSE2A-LN, December 2012. Available at https://www.valleywater.org/sites/default/files/Compilation%20Report_Dec%202012.pdf. Accessed December 23, 2019.

[15] California Governor's Office of Emergency Services, My Hazards Mapping Tool. Available at http://myhazards.caloes.ca.gov/. Accessed September 27, 2019.

River and nine outfalls to Los Gatos Creek. Three pump stations drain under the railway underpass, at Julian Street, Santa Clara Street, and Park Avenue. This infrastructure serves to prevent flooding of streets and highways and is maintained by the City's Department of Transportation and Public Works Department. Existing stormwater management systems serving the project site lack capacity to adequately convey floodwaters during a 10-year, 24-hour event as described in Chapter 2, *Project Description*, Section 2.8.7, *Stormwater*. According to City-modeled storm system analysis, areas that experience stormwater flooding under existing conditions include Stockton Avenue between Santa Clara Street and Lenzen Avenue; the intersection of Montgomery Street and Cinnabar Street; and along Santa Clara Street between Cahill Street and Autumn Street.[16]

The City and numerous other municipalities in Santa Clara County are co-permittees in the Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) program, discussed further in Section 3.8.2, *Regulatory Framework*. They share resources and collaborate in the project area to reduce pollution and minimize waterway impacts through the Santa Clara Valley Urban Runoff Pollution Prevention Program.

3.8.2 Regulatory Framework

Federal

Clean Water Act

Under the Federal Water Pollution Control Act, better known as the Clean Water Act (CWA), the U.S. Environmental Protection Agency (EPA) seeks to restore and maintain the chemical, physical, and biological integrity of the nation's waters by implementing water quality regulations. Multiple CWA sections apply to activities near or within surface water or groundwater. The federal Antidegradation Policy, established in 1968 under CWA Section 303, is designed to protect existing uses, water quality, and national water resources. The states implement a set of antidegradation measures when evaluating activities that may affect the quality of waters of the United States. Implementing antidegradation measures is integral to the comprehensive protection and enhancement of surface water and groundwater quality.

CWA Section 303(d) requires states to identify water bodies or segments of water bodies that are "impaired." (Impaired water bodies do not meet one or more of the water quality standards established by the state, even after point sources of pollution have been equipped with the minimum required levels of pollution control technology.) A *point source* is any discernible, confined, and discrete conveyance (e.g., a pipe discharge) of pollutants to a water body from sources such as industrial facilities or wastewater treatment plants. EPA must approve a state's 303(d) list before the list is considered final.

Including a water body on the Section 303(d) List of Impaired Water Bodies triggers development of a total maximum daily load (TMDL) for that water body and a plan to control the associated pollutant/stressor on the list. The *TMDL* is the maximum amount of a pollutant/stressor

[16] Schaaf & Wheeler, Google San Jose Storm System Analysis, August 2020.

that a water body can assimilate and still meet the water quality standards. Typically, a TMDL is the sum of the allowable loads of a single pollutant from all contributing point and non-point sources. *Non-point pollutant sources* are those that do not have a single, identifiable discharge point but are rather a combination of many sources. For example, a non-point source can be stormwater runoff from land that contains petroleum from parking lots, pesticides from farming operations, or sediment from soil erosion. The regional water quality control plan (referred to as the "basin plan") is amended to legally establish the TMDL and specify regulatory requirements, including waste load allocations for entities that have permitted discharges. The project site is under the jurisdiction of the San Francisco Bay Regional Water Quality Control Board. The *Water Quality Control Plan for the San Francisco Bay Basin* (Basin Plan) forms the basis for implementing water quality measures in the region, as discussed further below in the *Regional* section.

Table 3.8-2 lists the beneficial uses and impairment statuses of water bodies in the project area, along with the pollutants that cause the impairments. Once a water body is placed on the Section 303(d) List of Water Quality Limited Segments, it remains on the list until a TMDL or alternative approach is adopted and the water quality standards are attained, or until sufficient data become available to demonstrate that water quality standards have been met and delisting should take place. Under certain circumstances, alternative restoration approaches are approved in lieu of a TMDL. Implementation generally includes a near-term plan, a description of actions to be taken, and a schedule and milestones for achieving water quality standards.

CWA Section 404 authorizes the U.S. Army Corps of Engineers (USACE) to regulate the discharge of dredged or fill material to waters of the United States, including wetlands (U.S. Code Title 33, Section 1344 [33 USC 1344]). USACE issues site-specific individual or general (i.e., Nationwide) permits for such discharges.

Under CWA Section 401, any applicant for a federal license or permit to conduct an activity that may result in a discharge into navigable waters must provide the licensing or permitting agency with a certification that the discharge would comply with the applicable CWA provisions (33 USC 1341). It is anticipated that the proposed project's in-stream construction and demolition of existing support structures in Los Gatos Creek would include dredge and fill activity in jurisdictional waters of the United States. If a federal permit is required, such as a USACE Section 404 Nationwide Permit for dredge and fill discharges, the project applicant must also obtain a Section 401 Water Quality Certification from the regional water board.

CWA Section 402(p) regulates discharges to surface waters through the NPDES, a nationwide surface water discharge permit program for municipal and industrial point sources. In California, NPDES permitting authority is delegated to and administered by the nine regional water boards. Under Section 402, the San Francisco Bay Regional Water Quality Control 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 is responsible for preparing and revising the relevant basin plan (refer to the discussion of state regulations below).

TABLE 3.8-2
BENEFICIAL USES AND IMPAIRMENT STATUS OF WATER BODIES IN THE PROJECT AREA

Water Body	Beneficial Use(s)	Impairment Status	Pollutants
Guadalupe River	• Groundwater Recharge (GWR) • Cold Freshwater Habitat (COLD) • Migratory (MIGR) • Fish Spawning (SPWN) • Wildlife Habitat (WILD) • Preservation of Rare and Endangered Species (RARE) • Water Contact Recreation (REC-1) • Noncontact Water Recreation (REC-2)	At least one beneficial use is not supported; a TMDL has been developed, and the approved implementation plan is expected to result in full attainment.	Diazinon, mercury, and trash *Sources unknown*
Los Gatos Creek	• Municipal and Domestic Water Supply (MUN) • Freshwater Replenishment (FRSH) • Groundwater Recharge (GWR) • Cold Freshwater Habitat (COLD) • Migratory (MIGR) • Fish Spawning (SPWN) • Wildlife Habitat (WILD) • Preservation of Rare and Endangered Species (RARE) • Water Contact Recreation (REC-1) • Noncontact Water Recreation (REC-2)	At least one beneficial use is not supported; a TMDL has been developed, and the approved implementation plan is expected to result in full attainment.	Diazinon *Source unknown*
Santa Clara Valley (Coyote Valley) Groundwater Subbasin	• Municipal and Domestic Water Supply (MUN) • Industrial Process Water Supply (PROC) • Industrial Water Service Supply (IND) • Agricultural Water Supply (AGR)	N/A	N/A
San Francisco Bay, South	• Estuarine Habitat (EST) • Sport and Commercial Fishing (COMM) • Preservation of Rare and Endangered Species (RARE) • Water Contact Recreation (REC-1) • Noncontact Water Recreation (REC-2) • Fish Spawning (SPWN) • Wildlife Habitat (WILD)	At least one beneficial use is not supported and a TMDL is needed.	Chlordane, DDT, Dieldrin, dioxin compounds, furan compounds, invasive species, mercury, PCBs, selenium *Sources unknown*

NOTES:
DDT = dichlorodiphenyltrichloroethane; N/A = not applicable; PCB = polychlorinated biphenyl; TMDL = total maximum daily load

SOURCE: San Francisco Bay Regional Water Quality Control Board, *Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin*, amendments adopted through May 4, 2017. Available at https://www.waterboards.ca.gov/sanfranciscobay/basin_planning.html. Accessed September 12, 2019.

National Flood Insurance Program

FEMA determines flood elevations and floodplain boundaries based on studies by USACE. FEMA also distributes the Flood Insurance Rate Maps, or FIRMs, used in the National Flood Insurance Program (NFIP). These maps identify the locations of special flood hazard areas, including 1-percent-annual-chance (100-year) floodplains.

Code of Federal Regulations Title 44, Part 60, sets forth federal regulations that govern development in floodplains. Those regulations enable FEMA to require municipalities participating in the NFIP to adopt certain flood hazard reduction standards for construction and development in 100-year floodplains. These standards are described in the discussion of local regulations later in this section.

State

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act, also known as 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 Resources Control Board (State Water Board) administers water rights, water pollution control, and water quality functions throughout California, while the San Francisco Bay Regional Water Quality Control Board conducts planning, permitting, and enforcement activities.

The Porter-Cologne Act requires each regional water board to establish a regional basin plan with objectives for achieving and maintaining water quality, while acknowledging that water quality may change to some degree without unreasonably affecting beneficial uses. Changes in water quality are allowed if the change is consistent with the state's maximum beneficial use, does not unreasonably affect present or anticipated beneficial uses, and does not result in water quality less than that prescribed in the basin plans.

Under federal regulations, beneficial uses, together with the corresponding water quality objectives, are defined as standards. Therefore, the regional basin plans form the regulatory references for meeting both federal (CWA) and state (Porter-Cologne) requirements for water quality control. Beneficial uses for water bodies and water quality objectives for waters in the Santa Clara Valley Basin are designated in the San Francisco Bay Regional Water Quality Control Board's Basin Plan.[17]

Construction General Stormwater Permit

As described in Section 3.5, *Geology, Soils, and Paleontological Resources*, the proposed project would be subject to the NPDES *General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities*, referred to here as the "Construction General

[17] San Francisco Bay Regional Water Quality Control Board, *Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin*, amendments adopted through May 4, 2017. Available at https://www.waterboards.ca.gov/sanfranciscobay/basin_planning.html. Accessed September 12, 2019.

Permit" (State Water Board Order 2009-0009-DWQ, NPDES No. CAS000002; as amended by Orders 2010-0014-DWQ and 2012-006-DWQ). The Construction General Permit requires development of a stormwater pollution prevention plan (SWPPP) that includes best management practices (BMPs) to prevent sediment and pollutants from entering a waterway, and that regulates stormwater discharges from construction or demolition activities, such as clearing and excavation; construction of buildings; and linear underground projects, including installation of water pipelines and other utility lines.

To comply with the Construction General Permit, stormwater discharges and authorized non-stormwater discharges must not contain pollutants that cause or contribute to an exceedance of any applicable water quality objective or water quality standard (identified in the basin plan). The receiving water risk is based on whether the project drains to a "sediment-sensitive water body." A sediment-sensitive water body is one that:

- Appears on the most recent CWA Section 303(d) list for water bodies as impaired for sediment;
- Has an EPA-approved TMDL implementation plan for sediment; or
- Has the beneficial uses of cold freshwater habitat, fish migration, and fish spawning.

As identified in Table 3.8-2, the Guadalupe River and Los Gatos Creek have such beneficial uses and are on the 303(d) impaired waters list.

Lake and Streambed Alteration Agreement for Routine Maintenance Activities

California Fish and Game Code Section 1602 requires any person, state, or local government agency, or public utility to notify the California Department of Fish and Wildlife (CDFW) before beginning an activity that may divert or obstruct the natural flow of, change the bed, channel, or bank of, deposit or dispose of material into, or use material from any river, stream, or lake in California without a Lake and Streambed Alteration Agreement.[18] This agreement (or permit) covers several categories of actions, including those implemented regularly for ongoing flood control purposes: vegetation management, removal of sediment and debris, erosion control, maintenance and repair of flood control structures, and levee maintenance.

Under this (five-year) permit, an annual work plan is developed for the necessary activities and submitted to CDFW for review. The permit also requires follow-up reporting on the actual activities performed.

State Water Resources Control Board Order WQ 2016-0068-DDW, Water Reclamation Requirements for Recycled Water Use

The State Water Board established general conditions for the use of recycled water, in part to offset demand for water resources. Only treated municipal wastewater for non-potable uses can be permitted, such as landscape or crop irrigation, dust control, and industrial/commercial

[18] California Department of Fish and Wildlife, Lake and Streambed Alteration Program. Available at https://wildlife.ca.gov/Conservation/LSA. Accessed March 11, 2020.

cooling, consistent with the tertiary disinfection standards in Title 22 of the California Code of Regulations.[19] The recycled-water use order, WQ 2016-0068, was issued following the Governor's 2014 executive order pertaining to drought conditions, which directed the State Water Board to "adopt statewide general waste discharge requirements to facilitate the use of treated wastewater that meets standards set by the California Department of Public Health (CDPH), in order to reduce demand on potable water supplies."

Because the proposed project may include a recycled-water treatment facility as part of the utilidor described in Section 2.8.3, *Utility Corridor*, the following conditions for reuse of recycled water contained in the Recycled Water Use Order would be applicable to the project:[20]

a. Recycled water use shall not cause unacceptable groundwater and/or surface water degradation.
    i. Regional water boards have discretion regarding permitting storage of recycled water in unlined ponds. Applicants shall improve storage facilities if deemed necessary by a regional water board.
    ii. Application of recycled water is limited to agronomic rates, which limits the potential for significant amounts of recycled water to impact groundwater quality and allows plants to take up wastewater constituents such as nitrogen compounds.
    iii. Recycled water use shall be controlled to prevent significant runoff from application areas. This General Order authorizes use of recycled water for application to land, where recycled water is further treated in natural soil processes.

b. Recycled water shall not create nuisance conditions.
    i. The Uniform Statewide Recycling Criteria requires wastewater to be oxidized, which removes putrescible matter and requires dissolved oxygen. Maintaining dissolved oxygen in the wastewater will generally prevent nuisance odors.
    ii. Application of recycled water is controlled to prevent airborne spray from entering dwellings, eating areas, or food handling areas.
    iii. Application of recycled water to saturated soil is prohibited. Application to saturated soil reduces the soil treatment processes and may create conditions for mosquito breeding.

c. Recycled water shall only be used consistent with the Uniform Statewide Recycling Criteria and any other requirements specified in the Notice of Applicability.
    i. A written approval of a Title 22 Engineering Report must be obtained from the State Water Board before a Notice of Applicability (NOA) can be issued.
    ii. Uses of recycled water are subject to category-specific use area signage, and monitoring frequency requirements as specified in the Uniform Statewide Recycling Criteria. Uses not addressed by the Uniform Statewide Recycling Criteria will be considered on a case-by-case basis by regional water boards, after consulting with and

[19] California Code of Regulations, Title 22, Section 60301.230, Disinfected Tertiary Recycled Water. Available at https://govt.westlaw.com/calregs/. Accessed May 4, 2020.

[20] State Water Resources Control Board, Order WQ 2016-0068, Water Reclamation Requirements for Recycled Water Use, adopted June 7, 2016. Available at https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2016/wqo2016_0068_ddw.pdf. Accessed January 22, 2020.

receiving the recommendations of the State Water Board. These recommendations become requirements of the Order when specified in the Notice of Applicability.

iii. Uses of recycled water are subject to backflow prevention, cross connection tests, and setback requirements for surface impoundments, wells, etc. as contained in the Uniform Statewide Recycling Criteria and California Code of Regulations, title 17, division 1, article 2.

Industrial General Stormwater Permit

The Statewide General Permit for Stormwater Discharges Associated with Industrial Activities, Order 2014-0057-DWQ (Industrial General Permit) implements federal regulations at the state level for stormwater from industrial activities that is discharged to waters of the United States. The Industrial General Permit regulates operators of facilities that are subject to stormwater permitting for industrial activity. Under this permit, dischargers must develop and implement SWPPPs and include minimum and advanced BMPs as necessary to achieve compliance with effluent and receiving water limitations. The Industrial General Permit requires facility operators to comply with monitoring and reporting requirements and complete exceedance response actions (in the event of exceedance of numeric action levels).[21]

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act of 2014, effective January 1, 2015, authorizes local agencies to manage groundwater in a sustainable manner and allows limited state intervention when necessary to protect groundwater resources.

The SGMA defined "sustainable groundwater management"; established a framework for local agencies to develop plans and implement strategies to sustainably manage groundwater resources; prioritized the basins with conditions of overdraft (ranked as high and medium priority); and set a 20-year timeline for implementation. Basins were initially prioritized under the SGMA by the California Department of Water Resources in 2014 under the California Statewide Groundwater Elevation Monitoring Program.

The SGMA requires the creation of a groundwater sustainability agency that would develop and implement a Groundwater Sustainability Plan to manage and use groundwater in a manner that can be maintained during the planning and implementation horizon without undesirable results, defined as follows:

(1) Chronic lowering of groundwater levels, indicating a significant and unreasonable depletion of supply;

(2) Significant and unreasonable reduction of groundwater storage;

(3) Significant and unreasonable seawater intrusion;

[21] State Water Resources Control Board, *National Pollutant Discharge Elimination System (NPDES) General Permit Fact Sheet for Stormwater Discharges Associated with Industrial Activities*, NPDES Case No. CAS000001, updated January 2015. Available at https://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/industrial/2014indgenpermit/factsheet.pdf . Accessed January 27, 2020.

(4) Significant and unreasonable degraded water quality, including the migration of contaminant plumes that impair water supplies;

(5) Significant and unreasonable land subsidence that substantially interferes with surface land uses; or

(6) Depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water.

The project site is within Basin 2-009.02, Santa Clara Valley Basin, which is a high-priority basin. Valley Water, the local groundwater sustainability agency, submitted its *2016 Groundwater Management Plan: Santa Clara and Llagas Subbasins* as an alternative groundwater sustainability plan (GSP). Under the SGMA, local agencies have an opportunity to submit an "alternative" GSP, provided that the alternative satisfies the act's objectives for the basin. An alternative could be either an existing groundwater management plan, an adjudication, or an analysis of basin conditions that demonstrates that the basin has operated within its sustainable yield for a minimum of 10 years.[22] The following basin sustainability goals related to groundwater supply reliability and protection of water quality were developed for the Valley Water GSP:[23]

- Groundwater supplies are managed to optimize water supply reliability and minimize land subsidence.
- Groundwater is protected from contamination, including salt water intrusion.

Basin management strategies for achieving these goals are also identified in the GSP, as follows:

(1) Manage groundwater in conjunction with surface water.

(2) Implement programs to protect and promote groundwater quality.

(3) Maintain and develop adequate groundwater models and monitoring networks.

(4) Work with regulatory and land use agencies to protect recharge areas, promote natural recharge, and prevent groundwater contamination.

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-

[22] California Department of Water Resources, Alternatives to Groundwater Sustainability Plans. Available at https://water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management/Alternatives. Accessed December 20, 2019.

[23] 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 December 20, 2019.

0049; NPDES Permit No. CAS612008, issued by the San Francisco Bay Regional Water Quality Control Board.[24] An MS4 is a conveyance or system of conveyances that:

- Is owned by a state, city, town, village, or other public entity that discharges to waters of the United States;
- Is designed or used to collect or convey stormwater (e.g., storm drains, pipes, ditches);
- Is not a combined sewer; and
- Is not part of a sewage treatment plant or publicly owned treatment works.

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 (SCVURPPP) to collectively address waste discharge requirements (WDRs) and manage stormwater runoff from storm drains and watercourses within their jurisdictions. The mission of the SCVURPPP is "to assist in the protection of beneficial uses of receiving waters by preventing pollutants generated from activities in urban service areas from entering runoff to the maximum extent practicable." Member agencies implement pollution prevention, source control, monitoring, and outreach to reduce stormwater pollution in waterways and protect the water quality and beneficial uses of San Francisco Bay and Santa Clara County creeks and rivers.[25,] The SCVURPPP produced the Santa Clara Basin Stormwater Resource Plan, which notes the presence of legacy pollutants of concern in the basin, specifically mercury and polychlorinated biphenyls (PCBs) that pose a risk to water resources through urban runoff.[26]

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

[24] San Francisco Bay Regional Water Quality Control Board, *California Regional Water Quality Control Board San Francisco Bay Region Municipal Regional Stormwater NPDES Permit*, Order No. R2-2015-0049, NPDES Permit No. CAS612008, November 19, 2015. Available at https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/stormwater/Municipal/R2-2015-0049.pdf. Accessed September 12, 2019.

[25] Santa Clara Valley Urban Runoff Pollution Prevention Program, About SCVURPPP. Available at https://scvurppp.org/about-scvurppp/. Accessed December 23, 2019.

[26] Santa Clara Valley Urban Runoff Pollution Prevention Program, *Santa Clara Basin Stormwater Resource Plan*, August 2019. Available at https://scvurppp.org/wp-content/uploads/2019/08/SCB_SWRP_FINAL_8-20-19.pdf.

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 subwatersheds or catchment areas that are at least 65 percent impervious.

Municipal Regional Permit Provision C.12.f

Provision C.12.f of the MRP requires co-permittee agencies to implement a control program for PCBs that reduces PCB loads by a specified amount during the term of the permit, thereby making substantial progress toward achieving the Basin Plan's waste load allocation for PCBs in urban runoff by March 2030. Programs must include focused implementation of PCB control measures, such as source control, treatment control, and pollution prevention strategies. Municipalities throughout the Bay Area are updating their demolition permit processes to incorporate the management of PCBs in demolition building materials to ensure that PCBs are not discharged to storm drains during demolition. As of July 1, 2019, buildings constructed between 1955 and 1978 that are proposed for demolition must be screened for the presence of PCBs before a demolition permit can be issued.

San Francisco Bay Water Quality Control Plan

San Francisco Bay waters are under the jurisdiction of the San Francisco Bay Regional Water Quality Control Board, which established regulatory standards and objectives for water quality in the bay in the *Water Quality Control Plan for the San Francisco Bay Basin*, commonly referred to as the Basin Plan. The Basin Plan identifies existing and potential beneficial uses for surface water and groundwater and provides numerical and narrative water quality objectives designed to protect those uses.

Table 3.8-2 lists the beneficial uses and impairment status and the sources of pollution for water bodies in the project vicinity. The preparation and adoption of water quality control plans is required by the California Water Code (Section 13240) and supported by the federal CWA. Because beneficial uses, together with their corresponding water quality objectives, can be defined pursuant to federal regulations as water quality standards, the Basin Plan is a regulatory reference for meeting federal and state requirements for water quality control, and is the basis for standards outlined in discharge permits. Adoption or revision of surface water standards is subject to approval by EPA.

Waste Discharge Requirements and Water Quality Certification for the Santa Clara Valley Water District Stream Maintenance Program Santa Clara County

Valley Water is currently conducting stream maintenance activities under WDRs Order Number R2-2014-0015. The stream maintenance program activities provide flood protection and maintain channel conveyance capacity, while protecting natural resources with avoidance and minimization measures.[27] This permit is proposed for renewal in 2020. The Guadalupe River watershed is one of four watersheds in Santa Clara County that participates in the stream maintenance program under this permit. The project's proposed channel maintenance activities would be within jurisdictional waterways and would be required to be performed in a manner consistent with the terms and conditions of this water quality certification, along with other permits for in-stream activities.

Local

Envision San José 2040 General Plan Policies

In the *Envision San José 2040 General Plan* (General Plan), the City has adopted numerous goals, policies, and outlined actions with the objective of reducing and/or avoiding impacts on the city's water resources.[28] The following goals and policies are relevant to the proposed project:

Goal MS-3: Water Conservation and Quality. Maximize the use of green building practices in new and existing development to minimize use of potable water and to reduce water pollution.

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-3.4: Promote the use of greenroofs (i.e., roofs with vegetated cover), landscape-based treatment measures, pervious materials for hardscape, and other stormwater management practices to reduce water pollution.

Policy MS-3.5: Minimize areas dedicated to surface parking to reduce rainwater that comes into contact with pollutants.

Goal MS-20: Water Quality. Ensure that all water in San José is of the highest quality appropriate for its intended use.

Policy MS-20.2: Avoid locating new development or authorizing activities with the potential to negatively impact groundwater quality in areas that have been identified as

[27] San Francisco Bay Regional Water Quality Control Board, *Waste Discharge Requirements and Water Quality Certification (Order Number R2-2014-0015) for the Santa Clara Valley Water District Stream Maintenance Program, Santa Clara County*, 2014. Available at https://s3.us-west-2.amazonaws.com/assets.valleywater.org/SMP%20Permit%20San%20Francisco%20Regional%20Water%20Quality%20Control%20Board.pdf. Accessed March 23, 2020.

[28] City of San José, *Envision San José 2040 General Plan*, adopted November 1, 2011 (amended March 16, 2020). Available at https://www.sanjoseca.gov/home/showdocument?id=22359. Accessed January 16, 2020.

having a high degree of aquifer vulnerability by the Santa Clara Valley Water District or other authoritative public agency.

Policy MS-20.3: Protect groundwater as a water supply source through flood protection measures and the use of stormwater infiltration practices that protect groundwater quality. In the event percolation facilities are modified for infrastructure projects, replacement percolation capacity will be provided.

Policy MS-20.4: Work with local, regional and state agencies to protect and enhance the watershed, including the protection of surface water and ground water supplies from pollution and degradation.

Goal ER-2: Riparian Corridors. Preserve, protect, and restore the City's riparian resources in an environmentally responsible manner to protect them for habitat value and recreational purposes.

Policy ER-2.1: Ensure that new public and private development adjacent to riparian corridors in San José are consistent with the provisions of the City's Riparian Corridor Policy Study and any adopted Santa Clara Valley Habitat Conservation Plan/Natural Communities Conservation Plan (HCP/NCCP).

Policy ER-2.2: Ensure that a 100-foot setback from riparian habitat is the standard to be achieved in all but a limited number of instances, only where no significant environmental impacts would occur.

Policy ER-2.3: Design new development to protect adjacent riparian corridors from encroachment of lighting, exotic landscaping, noise and toxic substances into the riparian zone.

Policy ER-2.4: When disturbances to riparian corridors cannot be avoided, implement appropriate measures to restore, and/or mitigate damage and allow for fish passage during construction.

Policy ER-2.5: Restore riparian habitat through native plant restoration and removal of non-native/invasive plants along riparian corridors and adjacent areas.

Goal ER-8: Stormwater. Minimize the adverse effects on ground and surface water quality and protect property and natural resources from stormwater runoff generated in the City of San José.

Policy ER-8.1: Manage stormwater runoff in compliance with the City's Post-Construction Urban Runoff (6-29) and Hydromodification Management (8-14) Policies.

Policy ER-8.2: Coordinate with regional and local agencies and private landowners to plan, finance, construct, and maintain regional stormwater management facilities.

Policy ER-8.3: Ensure that private development in San José includes adequate measures to treat stormwater runoff.

Policy ER-8.4: Assess the potential for surface water and groundwater contamination and require appropriate preventative measures when new development is proposed in areas where storm runoff will be directed into creeks upstream from groundwater recharge facilities.

Policy ER-8.5: Ensure that all development projects in San José maximize opportunities to filter, infiltrate, store and reuse or evaporate stormwater runoff on site.

Policy ER-8.6: Eliminate barriers to and enact policies in support of the reuse of stormwater runoff for beneficial uses in existing infrastructure and future development in San José.

Policy ER-8.7: Encourage stormwater reuse for beneficial uses in existing infrastructure and future development through the installation of rain barrels, cisterns, or other water storage and reuse facilities.

Policy ER-8.8: Consider the characteristics and condition of the local watershed and identify opportunities for water quality improvement when developing new or updating existing development plans or policies including, but not limited to, specific or area land use plans.

Goal ER-9: Water Resources. Protect water resources because they are vital to the ecological and economic health of the region and its residents.

Policy ER-9.1: In consultation with the Santa Clara Valley Water District, other public agencies and the SCVWD's [Santa Clara Valley Water District's] Water Resources Protection Guidelines and Standards (2006 or as amended), restrict or carefully regulate public and private development in streamside areas so as to protect and preserve the health, function and stability of streams and stream corridors.

Policy ER-9.2: In consultation with the SCVWD restrict or carefully regulate public and private development in upland areas to prevent uncontrolled runoff that could impact the health and stability of streams.

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 ER-9.4: Work with the SCVWD to preserve water quality by establishing appropriate public access and recreational uses on land adjacent to rivers, creeks, wetlands, and other significant water courses.

Policy ER-9.5: Protect groundwater recharge areas, particularly creeks and riparian corridors.

Policy ER-9.6: Require the proper construction and monitoring of facilities that store hazardous materials in order to prevent contamination of the surface water, groundwater and underlying aquifers. In furtherance of this policy, design standards for such facilities should consider high groundwater tables and/or the potential for freshwater or tidal flooding.

Goal EC-5: Flooding Hazards. Protect the community from flooding and inundation and preserve the natural attributes of local floodplains and floodways.

Policy EC-5.1: The City shall require evaluation of flood hazards prior to approval of development projects within a Federal Emergency Management Agency (FEMA) designated floodplain. Review new development and substantial improvements to existing structures to ensure it is designed to provide protection from flooding with a one

percent annual chance of occurrence, commonly referred to as the "100-year" flood or whatever designated benchmark FEMA may adopt in the future. New development should also provide protection for less frequent flood events when required by the State.

Policy EC-5.2: Allow development only when adequate mitigation measures are incorporated into the project design to prevent or minimize siltation of streams, flood protection ponds, and reservoirs.

Policy EC-5.3: Preserve designated floodway areas for non-urban uses.

Policy EC-5.4: Develop flood control facilities in cooperation with the Santa Clara Valley Water District to protect areas from the occurrence of the "1%" or "100-year" flood or less frequent flood events when required by the State.

Policy EC-4.12: Require review and approval of grading plans and erosion control plans (if applicable) prior to issuance of a grading permit by the Director of Public Works.

City of San José 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 BMPs and treatment control measures. This policy also established specific design standards for post-construction treatment control measures for projects that create or replace 10,000 square feet, or special land use projects that create or replace 5,000 square feet or more of impervious surfaces.

The project applicant would submit a Stormwater Control Plan as part of the City's grading and drainage permit process. The Stormwater Control Plan would provide detailed information such as design calculations, conceptual drainage, stormwater treatment control measures, source control measures, calculations for pervious and impervious surface areas, and drainage management calculations.[29]

City of San José Policy 6-34 (Riparian Corridor Protection and Bird Safe Design)

The City conducted a riparian corridor policy study in 1994 (revised in 1999) to inform policy for protecting riparian corridors along the city's creeks and rivers. The study also provided other guidance for protecting water quality and fish and wildlife habitat. The General Plan incorporates many of these policies to protect city waterways.[30] The Riparian Corridor Policy Study provided recommendations and guidance, and formed the basis for the Riparian Corridor Protection Policy, Policy 6-34.

Policy 6-34 contains design guidelines to minimize intrusion into riparian corridors. The policy establishes 100-foot setbacks for new residential buildings, commercial/institutional buildings, parking facilities, roads, and new buildings in existing urban infill areas adjacent to a riparian

[29] Arup, Lendlease & Sherwood Design Engineers, *Google Downtown West Infrastructure Plan*, October 7, 2020.
[30] City of San José, *Envision San José 2040 General Plan*, adopted November 1, 2011 (amended March 16, 2020). Available at https://www.sanjoseca.gov/home/showdocument?id=22359. Accessed January 16, 2020.

corridor.[31] Under Policy 6-34, reduced setbacks may be considered under if required findings are made, including for developments located within the boundaries of the Downtown Area, as those boundaries are defined in the General Plan.

City of San José Policy 8-14 (Post-construction Hydromodification Management)

Consistent with the Municipal Regional Stormwater NPDES Permit, City Policy 8-14, *Post-construction Hydromodification Management* (2005, revised 2010) implements a framework for measures to control the hydromodification impacts of new development or redevelopment projects, where such activity is likely to increase erosion, generate silt, or otherwise adversely affect local rivers and creeks. In the context of the policy, *hydromodification* refers to projects that create and/or replace 1 acre or more of impervious surface, and are located in subwatersheds or catchment areas that are less than 65 percent impervious or are "under review."[32] Applicable areas are provided in a map attached to Policy 8-14. A review of the Policy 8-14 maps shows that the proposed project would not be located within the applicable areas; therefore, Policy 8-14 does not apply to the proposed project.

Guidelines & Standards for Land Use near Streams

The Santa Clara Valley Water Resources Protection Collaborative was formed in 2002 and consists of multiple stakeholders, the County, and 15 municipalities, including the City of San José. The collaborative adopted the *Guidelines & Standards for Land Use Near Streams* to inform development review of proposals near streams. The document includes requirements and recommendations to protect streams and water resources in Santa Clara County. Key recommendations include protection and enhancement of riparian buffers; use of locally native plant species; a slope stability and erosion control guidance; and guidelines for establishing freeboard for bridge crossings for flood control, among others.[33]

The City of San José affirmed the consistency of City policies with the guidance presented in the Santa Clara Valley Water Resources Protection Collaborative *Guidelines & Standards for Land Use near Streams*.[34] The project's removal of bridge abutments and other proposed in-stream elements would be subject to City review and approval based on these standards.

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31 City of José, City Council Policy No. 6-34, Riparian Corridor Protection and Bird Safe Design, effective August 23, 2016. Available at https://www.sanjoseca.gov/home/showdocument?id=12815. Accessed January 27, 2020.

32 City of San José, City Council Policy No. 8-14, Post-construction Hydromodification Management, effective October 18, 2005 (revised February 23, 2010). Available at https://www.sanjoseca.gov/home/showdocument?id=12743. Accessed October 30, 2019.

33 Santa Clara Valley Water Resources Protection Collaborative, *Guidelines & Standards for Land Use near Streams*, August 2005 (revised July 2006). Available at https://www.valleywater.org/contractors/doing-businesses-with-the-district/permits-for-working-on-district-land-or-easement/guidelines-and-standards-for-land-use-near-streams. Accessed December 23, 2019.

34 City of San José, Resolution Number 73644, February 12, 2007.

City of San José Requirements for Special Flood Hazard Area

The City Code contains specific requirements pertaining to new developments in special flood hazard areas:[35]

A. The Floodplain Administrator shall review subdivision applications and other proposed new development applications in the special flood hazard area to assure that:

   1. All such applications are consistent with the need to minimize flood damage;

   2. All public utilities and facilities, such as sewer, gas, electrical and water systems are located, elevated and constructed to minimize or eliminate flood damage; and

   3. Adequate drainage is provided so as to reduce exposure to flood hazards. Such subdivision applications and other proposed new development applications shall include base flood elevation data available from federal, state and local sources.

B. The Floodplain Administrator shall require that all manufactured homes to be placed within such special flood hazard areas be anchored to resist flotation, collapse or lateral movement by providing over-the-top or frame ties to ground anchors. Specific requirements shall be determined by the floodplain administrator, and shall include an elevation certificate, but in no way are to be of lesser magnitude than those specified in the Federal Insurance Administration's National Flood Insurance Program revised regulations (44 C.F.R. [Code of Federal Regulations] Part 60). Pursuant to state law, certification meeting the standards above is required of the local enforcement agency responsible for regulating the placement, installation and anchoring of individual manufactured home units.

C. The Floodplain Administrator shall require that until a floodway is designated by the administrator, no new construction, subdivision, improvement or other development, including fill, shall be permitted within a special flood hazard area on the community FIRM unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community.

D. The floodplain administrator shall prohibit encroachments, including fill, new construction, substantial improvement, and other development within designated floodways unless certification by a registered professional engineer is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.

City of San José Green Stormwater Infrastructure Plan

In 2019, the City developed a green stormwater infrastructure (GSI) plan (required under the Municipal Regional Stormwater NPDES Permit) that establishes guidance for reducing the long-term, adverse impacts of urbanization and urban runoff on the water quality of receiving waters. The GSI Plan includes integrated design measures to capture and treat stormwater runoff using soil, plants, and pervious surfaces in a manner consistent with the City's planning and

[35] City of San José, *City of San José Code of Ordinances*, Title 17, Buildings and Construction; Chapter 17.08, Special Flood Hazard Areas; Part 5, Requirements; Section 17.08.640, New Developments. Available at https://library.municode.com/ca/san_jose/codes/code_of_ordinances?nodeId=TIT17BUCO_CH17.08SPFLHAARE_PT5RESPFLHAAR_17.08.640NEDE. Accessed January 15, 2020.

sustainability goals and regulatory requirements.[36] The proposed project would implement design measures consistent with the hydrology and water quality goals of the GSI Plan. The goals of the GSI Plan are as follows:

- Protect beneficial uses of waterways within San José, including the Bay, and provide environmental and community benefits.
- Capture, infiltrate, treat and/or repurpose stormwater with multibenefit projects that can enhance public spaces, water supply, flood control, habitat, and green spaces.
- Retrofit public rights-of-way to exhibit complete streets with GSI.
- Reduce pollutants discharging to creeks from the MS4.
- Demonstrate quantitatively the pollutant load reductions that can be achieved through implementation of GSI.

City of San José Environmental Standard Conditions for Approval

The following condition of approval in the City's Environmental Standard Conditions for Approval (SCAs) is applicable to the proposed project:

SCA HY-1 Construction-related Water Quality.[37] The project applicant shall implement the following conditions:

- Install burlap bags filled with drain rock around storm drains to route sediment and other debris away from the drains.
- Suspend earthmoving or other dust-producing activities during periods of high winds.
- Water all exposed or disturbed soil surfaces at least twice daily to control dust as necessary.
- Water or cover stockpiles of soil or other materials that can be blown by the wind.
- Cover all trucks hauling soil, sand, and other loose materials and maintain at least two feet of freeboard on all trucks.
- Sweep all paved access roads, parking areas, staging areas, and residential streets adjacent to the construction sites daily (with water sweepers).
- Replant vegetation in disturbed areas as quickly as possible.
- Fill with rock all unpaved entrances to the site to remove mud from tires prior to entering City streets. Install a tire wash system if requested by the City.
- Comply with the City of San José Grading Ordinance, including implementing erosion and dust control during site preparation and with the City's zoning ordinance requirements for keeping adjacent streets free of dirt and mud during construction.

[36] City of San José, *City of San José Green Stormwater Infrastructure Plan*, September 2019.
[37] City of San José, *City of San José Standard Conditions for Hydrology and Water Quality*, Construction-Related Water Quality, October 7, 2019.

Diridon Station Area Plan Standard Measures

The Diridon Station Area Plan outlined specific measures that would be required for future projects constructed under the plan. The proposed project would implement the following standard measures during construction:

Standard Measures for Erosion Control

- Standard erosion control and grading BMPs will be implemented during construction to prevent substantial erosion from occurring during site development. The BMPs shall be included in all construction documents.
- BMPs may include, but not be limited to, the following:
  i. Restrict grading to the dry season or meet City requirements for grading during the rainy season;
  ii. Use effective, site-specific erosion and sediment control methods during the construction periods. Provide temporary cover of all disturbed surfaces to help control erosion during construction. Provide permanent cover as soon as is practical to stabilize the disturbed surfaces after construction has been completed;
  iii. Cover soil, equipment, and supplies that could contribute non-visible pollution prior to rainfall events or perform monitoring of runoff with secure plastic sheeting or tarps;
  iv. Implement regular maintenance activities such as sweeping driveways between the construction area and public streets. Clean sediments from streets, driveways, and paved areas on-site using dry sweeping methods. Designate a concrete truck washdown area;
  v. Dispose of all wastes properly and keep site clear of trash and litter. Clean up leaks, drips, and other spills immediately so that they do not contact stormwater; and
  vi. Place fiber rolls or silt fences around the perimeter of the site. Protect existing storm and sewer inlets in the project area from sedimentation with filter fabric and sand or gravel bags.
- Prior to issuance of a Public Works Clearance, the applicant must obtain a grading permit before commencement of excavation and construction. In accordance with General Plan Policy EC-4.12, the applicant may be required to submit a Grading Plan and/or Erosion Control Plan for City review and approval, prior to issuance of a grading permit[38]; and
- Projects over 1 acre in size would be required to prepare an SWPPP under the NPDES Construction General Permit and City Municipal Code.

Measures Included to Reduce and Avoid Impacts during Dewatering

- If dewatering is necessary during construction, the design level geotechnical investigation shall be prepared to evaluate the underlying sediments and determine the potential for settlements to occur. If it is determined that unacceptable settlements may occur, then alternative groundwater control systems shall be required.

[38] Note: It is assumed that the project applicant would be required to submit grading and erosion control plans before a grading permit is issued.

3.8.3 Impacts and Mitigation Measures

Significance Criteria

For the purposes of this EIR, a hydrology and water quality impact would be significant if implementing the proposed project would:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality;
- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
  - Result in substantial erosion or siltation on- or off-site;
  - Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
  - Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
  - Impede or redirect flood flows;
- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation; or
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Approach to Analysis

The following analysis discusses the potential significant impacts of the proposed project related to changes in hydrology and water quality or other hydrology-related impacts on the project site. This section analyzes both potential construction-related and operational impacts of the proposed project. Impacts are assessed based on changes to the existing conditions described in this section. In cases where impacts would remain significant after implementation of the standard measures, mitigation measures are recommended as necessary to reduce impacts to less-than-significant levels.

Impact Analysis

Impact HY-1: The proposed project could violate a water quality standard or waste discharge requirement or otherwise substantially degrade surface or groundwater quality. ***(Less than Significant with Mitigation)***

Because the proposed project would be located under the water quality jurisdiction of the San Francisco Bay Regional Water Quality Control Board, the standards and requirements

contained in the Basin Plan would be applicable to the assessment of impacts on surface water and groundwater quality.

Construction

The proposed project would include construction of a mixed-use development; on-site district utilities, including a new utility corridor, recycled-water conveyance infrastructure, stormwater system upgrades, and a new stormwater outfall to Los Gatos Creek; a new clear-span bridge replacing the existing West San Fernando Street bridge; a new clear-span footbridge over Los Gatos Creek between West Santa Clara Street and the VTA light-rail tracks approximately 15 acres of new parks and open space and off-site transportation improvements, including a trail connection, some potions of which would run alongside Los Gatos Creek (described in detail in Section 2.7.6, *Off-Site Transportation Improvements*). This construction would involve site preparation activities such as excavation, grading, trenching, and ground disturbance that could increase runoff and violate water quality standards for the Guadalupe River and Los Gatos Creek. As described in the Downtown West District Infrastructure Plan prepared for the project, although the project would use existing storm drains to the extent feasible, approximately 6,300 feet of new subsurface stormwater pipes would be installed to accommodate site drainage for the new development.[39] Project activity would disturb soils and could temporarily generate exceedances of federal or state water quality standards during construction, or affect beneficial uses for these receiving waters (identified in Table 3.8-2).

As noted in Table 3.8-2, the Basin Plan identifies the Guadalupe River and Los Gatos Creek as impaired and subject to the requirements of a TMDL to limit the introduction of pollutants into surface waters and groundwater. In the absence of proper controls, stormwater runoff from project construction could lead to surface water and groundwater contamination, which could degrade water quality, compromise aquatic habitats, and/or result in violations of water quality standards.

As discussed in Section 3.2, *Biological Resources*, the proposed project would include trail construction within or adjacent to the Los Gatos Creek riparian corridor, which would affect Los Gatos Creek and be located near and within the riparian corridor and could disturb the corridor, which provides a natural protective buffer for water resources. Project work would also include demolition of the existing bridge over Los Gatos Creek at West San Fernando Street, including removal of in-stream pile structures; replacement of an existing 18-inch-diameter stormwater outfall (to be abandoned in place) with an upgraded (33-inch-diameter) stormwater outfall; and construction of a replacement bridge, including a utilidor crossing over Los Gatos Creek. In addition, construction of a new footbridge over Los Gatos Creek between the West San Fernando Street/Santa Clara Valley Transportation Authority (VTA) bridge and West Santa Clara Street, connecting South Autumn Street and Blocks E1, E2, and E3, is proposed along with associated pathways. It is assumed that bridge replacement activities would include vegetation removal within the existing rights-of-way in the riparian corridor, as discussed in Section 3.2, *Biological Resources*. An additional utilidor crossing on the southern part of the project site, as described in Section 2.8.3, *Utility Corridor*, would use jack and bore construction methods to

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

cross beneath Los Gatos Creek. Jacking and receiving pits required in this crossing option would be placed outside of the riparian corridor to minimize impacts to aquatic resources.

Initial restoration is also proposed in and along the banks of Los Gatos Creek, which would remove debris, logjams, invasive species, and dead trees in the channel to improve floodwater conveyance. Engineered log structures would be installed in the waterway for fish habitat enhancement to improve ecological function.[40] Ongoing periodic stream maintenance activities would also be likely to occur as part of the proposed project (as discussed further under Impact HY-3), in conjunction with Valley Water, to maintain the creek's capacity for conveying floodwaters. The resulting disturbance of the riparian corridor, including in-channel construction, would alter the landscape and could affect water quality.

Demolishing piles, removing debris, and construction of the new stormwater outfall would require a streambed alteration agreement pursuant to California Fish and Game Code Section 1602, in addition to a CWA Section 404 permit from USACE, as described in Section 3.8.2, *Regulatory Framework*. In-stream work to remove the pier/pilings for replacement of the West San Fernando Street bridge, or any other in-water work in Los Gatos Creek or the Guadalupe River, would require the project applicant to apply for waste discharge requirements, subject to conditions specified by the San Francisco Bay Regional Water Quality Control Board, and apply for coverage under an existing water quality certification (Order No. 2014-0015) to permit ongoing flood control activities, in coordination with the current Valley Water stream maintenance program.

To reduce water quality impacts associated with in-stream activities and from potential increased runoff during construction, City Standard Conditions of Approval SCA HY-1, Construction-related Water Quality, would be implemented along with **Mitigation Measure HY-1, Water Quality Best Management Practices during Construction Activities in and near Waterways**, a specific water quality protection mitigation measure intended to limit the potential impacts of construction in or near waterways.

Additional measures to minimize disturbance and protect the riparian corridor would also be implemented. Refer to **Mitigation Measure BI-1a, General Avoidance and Protection Measures**, in Section 3.2, *Biological Resources*.

The proposed project also would be required to adhere to the terms of the Construction General Permit, which would require that an SWPPP (or separate SWPPPs for each construction phase) be developed for the project. The SWPPP would be designed to protect waterways from stormwater contamination. The SWPPP would include BMPs for construction to limit contamination associated with site run-on and runoff, such as installing tracking controls to limit contamination of city streets; placing straw wattles and silt barriers adjacent to storm drains; and following good-housekeeping measures such as covering spoils piles and regularly removing trash from construction sites. To ensure that construction activities do not compromise water quality, appropriate measures would be

[40] *Engineered fish habitat enhancement log structures* are human-made structures introduced into a waterway to mimic the function of logs and logjams that provide refuge for migrating steelhead. Unlike logs and logjams, these structures can be maintained over time to ensure continuing habitat provision while avoiding increased flood risk.

taken to limit deliveries of pollutants and potentially hazardous materials, as described in Section 3.7, *Hazards and Hazardous Materials*, Impact HA-1.

Excavation is proposed for the construction of subsurface parking on the project site. Although groundwater levels vary based on annual rainfall conditions, groundwater is known to be encountered on the project site at less than 25 feet below ground surface; thus, dewatering is likely to be required. For additional details regarding parcel site–specific groundwater levels and contamination issues, refer to Section 3.7, *Hazards and Hazardous Materials*.

Should dewatering be necessary for project construction, the proposed project would be required to provide for the proper management of dewatering effluent. At a minimum, dewatering effluent would be contained before discharge to allow sediments to settle, and would be filtered if necessary to ensure that only clear water would be discharged to the storm drain or sanitary sewer system. In areas of suspected groundwater contamination (areas underlain by fill or near sites of known or suspected chemical releases, as described in Section 3.7, *Hazards and Hazardous Materials*, Impact HA-3), a state-certified laboratory would sample and analyze the groundwater for the suspected pollutants before discharge (refer to Mitigation Measure HA-3c). Based on the results of analytical testing, the project applicant would work with the San Francisco Bay Regional Water Quality Control Board and/or the San José–Santa Clara Regional Wastewater Facility to determine appropriate options for discharge. Options could include retreatment before discharge, depending on the type of contaminant detected during water testing. In addition, the proposed project would be constructed in a manner consistent with SCA HY-1, Construction-related Water Quality, in the City's Environmental Standard Conditions for Approval. Access roads, parking areas, and staging sites would be swept daily to reduce mud and dirt track-out onto city streets, which would also reduce the delivery of silt and sediment into Los Gatos Creek and the Guadalupe River.

To ensure that contaminants would not be released into groundwater during construction excavation, the project would implement **Mitigation Measure HA-3b, Health and Safety Plan**, and **Mitigation Measure HA-3c, Site Management Plan**, as described in Section 3.7, *Hazards and Hazardous Materials*. Mitigation Measure HA-3b specifies procedures for hazardous materials response that would limit the contamination of water resources by dewatering activities. Mitigation Measure HA-3c requires development of a plan to provide for the safe handling, transport, and disposal of potentially hazardous materials, if encountered in site soils, soil gases, or groundwater.

With implementation of these mitigation measures and compliance with regulatory requirements, including measures required by the SWPPP and the City's construction and demolition requirements, construction-related impacts on water quality would be **less than significant with mitigation incorporated**.

Mitigation Measures

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

To avoid and/or minimize potential impacts on water quality (and jurisdictional waters) for project activities that would be conducted in, over, or within 100 feet of waterways,

the project contractor shall implement the following standard construction best management practices (BMPs), applicable to project construction activities in, near, or over waterways, to prevent releases of construction materials or hazardous materials and to avoid other potential environmental impacts:

- If the project includes activities such as debris removal or pier/pile demolition, the project applicant for the specific work proposed shall be required to submit a notice of intent to comply with waste discharge requirements and conditions identified by the San Francisco Bay Regional Water Quality Control Board. No debris, rubbish, soil, silt, sand, cement, concrete, or washings thereof, or other construction-related materials or wastes, oil, or petroleum products shall be allowed to enter jurisdictional waters, or shall be placed where it would be subject to erosion by rain, wind, or waves and enter into jurisdictional waters, except as permitted by the San Francisco Bay Regional Water Quality Control Board under an approved waste discharge requirement permit condition. Staged construction materials with the potential to be eroded/entrained during a rainfall event shall be covered every night and during any rainfall event (as applicable).
- In-stream construction shall be scheduled during the summer low-flow season to the extent feasible to minimize impacts on aquatic resources.
- To the maximum extent practicable, construction materials, wastes, debris, sediment, rubbish, trash, fencing, etc., shall be removed from the project site's riparian areas daily during construction, and thoroughly at the completion of the project. Debris shall be transported to a pre-designated upland disposal area.
- Protective measures shall be used to prevent accidental discharges of oils, gasoline, or other hazardous materials to jurisdictional waters during fueling, cleaning, and maintenance of equipment, as outlined in the project's soil and groundwater management plan. Well-maintained equipment shall be used to perform construction work, and except in the case of failure or breakdown, equipment maintenance shall be performed off-site, to the extent feasible. Crews shall check heavy equipment daily for leaks; if a leak is discovered, it shall be immediately contained and use of the equipment shall be suspended until repaired. The source of the leak shall be identified, material shall be cleaned up, and the cleaning materials shall be collected and properly disposed.
- Vehicles and equipment used during construction shall be serviced off-site, as feasible, or in a designated location a minimum of 100 feet from waterways. Fueling locations shall be inspected after fueling to document that no spills have occurred. Any spills shall be cleaned up immediately.

Mitigation Measure BI-1a: General Avoidance and Protection Measures (refer to Section 3.2, *Biological Resources*)

Mitigation Measure HA-3b: Health and Safety Plan (refer to Section 3.7, *Hazards and Hazardous Materials*)

Mitigation Measure HA-3c: Site Management Plan (refer to Section 3.7, *Hazards and Hazardous Materials*)

Significance after Mitigation: Less than significant.

Operation

The majority of the project site consists of previously disturbed and urbanized land. Based on the preliminary stormwater evaluation, the proposed project is designed to include a net reduction of approximately 9 percent of impervious surface area compared to existing conditions, from approximately 97 percent impervious under existing conditions to about 88 percent impervious with project implementation. The project includes green stormwater infrastructure elements, which would enhance source control and interception of pollutants.[41] As described in Section 3.2, *Biological Resources*, project construction activities in the riparian corridor would include: developing public pathways and re-vegetating disturbed areas near the Guadalupe River and Los Gatos Creek; constructing a storm drain outfall; debris, logjam, and dead and invasive tree removal within Los Gatos Creek; completing minor improvements to creek access; constructing both a new footbridge and a reconstructed bridge (West San Fernando Street/VTA); and installing a utilidor crossing beneath Los Gatos Creek north of San Carlos Street at the southern part of the project site. Post-construction monitoring and treatment controls, as required by MRP Provision C.3 and the Construction General Permit and pursuant to City Policy 6-29, would be implemented to ensure that the proposed project would not have ongoing adverse residual impacts on receiving waters.

As the project would be located in an urban area subject to conditions in an existing MRP stormwater permit, the proposed project must demonstrate that stormwater would be managed in a manner consistent with the County's Urban Runoff Program C.3 Stormwater Handbook and the goals of the City's GSI Plan for improving municipal stormwater quality. The proposed project would be designed to be consistent with local guidelines for land use to protect streams and water resources in Santa Clara County, and would be consistent with the design guidance of the Santa Clara Valley Urban Runoff Pollution Prevention Program. The project would implement stormwater treatment and runoff pollution prevention measures, as required under the City's MRP, to reduce runoff and prevent increases in runoff flows.

As discussed in Section 3.8.2, *Regulatory Framework*, a stormwater control plan would be prepared for the project and submitted to the City. The plan would document site conditions, conceptual drainage and treatment areas, drainage management calculations, areas of pervious and impervious surfaces (compared to existing conditions), and source control measures, among other information. These stormwater control measures would include site design details for roadside bioretention areas, landscaping with native plants, inclusion of pervious paving, and other design elements.

The project's design includes upgrades to existing storm drain infrastructure that would be consistent with County and City standards such as the City's Stormwater Management Plan, which is aligned with the terms of the MRP. By using specific design measures and BMPs after construction, the project would intercept contaminants and reduce runoff during storms. Furthermore, as described in Section 3.7, *Hazards and Hazardous Materials*, the proposed project would remove existing sources of contamination such as mercury and PCBs, which would improve base conditions and improve the quality of runoff.

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

The project would add a new outfall and flap gate to Los Gatos Creek in conjunction with an upgrade to the existing storm drain in West Santa Clara Street (refer to the discussion of Impact HY-4). The outfall would be constructed according to the requirements of the San Francisco Bay Regional Water Quality Control Board and Valley Water, as well as those of any other applicable agencies such as USACE and CDFW. Following the on-site stormwater treatment and runoff pollution prevention measures as described above and the regulations noted above would ensure that stormwater discharged from the project site to Los Gatos Creek via the new outfall, and from other existing outfalls to Los Gatos Creek or the Guadalupe River, would not degrade water quality in either water body.

As described in Section 2.8.5, *Wastewater*, the proposed project would construct and maintain an on-site private sanitary sewer collection network and potential water reuse facility and would use and expand the existing public sewer infrastructure. With the on-site facility, wastewater would be treated to Title 22 tertiary-level disinfection standards, which would allow for water reuse. Treated recycled water would be used for cooling and distributed to blocks for reuse in irrigation, water closet and urinal flushing. As an option, the project applicant would not build and operate an on-site wastewater treatment and reuse facility, but instead would connect to the public sewer system and extend recycled-water conveyance infrastructure. Under this option, project-generated wastewater would be transported via existing and, where required, upgraded collection facilities to the San José–Santa Clara Regional Wastewater Facility in the Alviso neighborhood of north San José. The project's water reuse would conform to State Water Board requirements and standards to protect surface water and groundwater and limit nuisance conditions, and would be consistent with CDPH requirements. No new creek outfalls are proposed as part of the project in connection with the on-site water reuse facility.

Mitigation Measure BI-2a, Avoidance of Impacts on Riparian Habitat, would provide for re-vegetation and ongoing monitoring of the riparian corridor after construction to repair construction-related disturbance of the corridor and reduce site runoff, erosion, and potential contamination of surface waters. Mitigation Measure HA-3c, Site Management Plan, would require development of a plan that would include protocols for assessing potential site-specific contamination; handling requirements for dewatering effluent; and other protections for groundwater quality (including jurisdictional notification), as well as soil and groundwater sampling, as described in Section 3.7, *Hazards and Hazardous Materials*. With implementation of these mitigation measures and compliance with regulatory requirements, the proposed project would operate and be maintained in a manner consistent with the Basin Plan's water quality standards and would not substantially degrade surface or groundwater quality. Impacts would be **less than significant with mitigation incorporated**.

Mitigation Measures

Mitigation Measure BI-2a: Avoidance of Impacts on Riparian Habitat (refer to Section 3.2, *Biological Resources*)

Mitigation Measure HA-3c: Site Management Plan (refer to Section 3.7, *Hazards and Hazardous Materials*)

Significance after Mitigation: Less than significant.

Impact HY-2: The proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. ***(Less than Significant)***

Based on the preliminary stormwater evaluation, impervious surface areas would be reduced in the project area by approximately 9 percent compared to existing conditions The project is designed to include green infrastructure elements that may include bioretention, flow-through planters, pervious paving, green roofs, and possibly rainwater harvesting or infiltration facilities, consistent with green stormwater infrastructure objectives and MRP requirements for stormwater. Thus, the proposed project would not interfere with recharge and would be consistent with the sustainable management of groundwater resources in the Santa Clara Groundwater Basin.

The project site is located in the Santa Clara Groundwater Basin, and is designated as a high-priority basin with respect to groundwater.

The proposed project would use San Jose Water Company (San Jose Water) groundwater resources to serve residents and businesses in San José, which would place demands on groundwater supplies in a high-priority basin. San Jose Water works closely with Valley Water to manage demand, which depends in part on groundwater resources from the Santa Clara Valley Subbasin for its drinking water supply (refer to Section 3.14, *Utilities and Service Systems*, Section 3.14.1, for additional discussion of municipal water sources). According to the water supply assessment prepared for the proposed project, the project's projected water demand is within previously determined growth projections for the San Jose Water system.[42] Furthermore, to the extent feasible, the project applicant would implement conservation measures and provide for the use of recycled water to offset the project's water demand. Therefore, decreases in groundwater from operation of the proposed project would not be substantial. This impact would be **less than significant**.

Mitigation: None required.

Impact HY-3: The proposed project could substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site; or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site. ***(Less than Significant with Mitigation)***

Construction

Project construction would occur on an 81-acre project site and would include substantial excavation, grading, trenching, and other ground-disturbing activities, some near or in waterways. These activities would result in temporary impacts, including a potential for increased runoff during construction and minor alterations of waterways. Construction would also alter existing drainage patterns of the project site. In the absence of mitigation, such impacts would be

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

potentially significant. As discussed in Impact HY-1, during construction, the project would implement BMPs identified in the SWPPP and applicable development design standards and Mitigation Measures HY-1 and BI-1a to protect waterways and limit or minimize erosion, runoff, and/or siltation on-site or off-site. Implementation of these measures would reduce impacts to less-than-significant levels. Construction impacts would be less than significant with mitigation incorporated.

Mitigation Measures

Mitigation Measure HY-1: Water Quality Best Management Practices during Construction Activities in and near Waterways (refer to Impact HY-1)

Mitigation Measure BI-1a: General Avoidance and Protection Measures (refer to Section 3.2, *Biological Resources*)

Significance after Mitigation: Less than significant.

Operation

As stated under Impact HY-2, based on the preliminary stormwater evaluation, the proposed project would result in an estimated 9 percent net reduction in impervious surfaces compared to existing conditions. The project would create approximately 15 acres of new parks and open space and include native vegetation, pervious paving, and infiltration facilities. Therefore, the project would have a less-than-significant impact related to the addition of impervious surfaces that would cause substantial erosion or siltation on or off site, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site.

Although removal of the existing West San Fernando Street bridge, including in-stream abutments, and replacement with a clear-span bridge would include alteration within the channel of Los Gatos Creek, the proposed improvements would result in reduced flooding risk.[43] The proposed channel rehabilitation would involve alteration within the channel of Los Gatos Creek but also would reduce flood risk and improve creek conveyance.[44] The channel rehabilitation would be designed and implemented in consultation with the jurisdictional agencies, consistent with the regulations and permit requirements of the San Francisco Bay Regional Water Quality Control Board, USACE, and Valley Water. As such, replacement of the West San Fernando Street bridge and channel rehabilitation would not alter Los Gatos Creek in a manner that results in substantial erosion or siltation, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site. Together, the proposed improvements would reduce flood risk and improve conveyance of Los Gatos Creek.

As described in Appendix H2, the project's hydrologic analysis determined that replacing the West San Fernando Street bridge and rehabilitating Los Gatos Creek channel would eliminate flood risk for most of the project site—except for portions of up to five blocks.[45] Buildings in these areas would need to be elevated above grade or flood proofed. The project's hydrology

[43] Schaaf & Wheeler, *Google San Jose Hydrology and Flood Control Measures*, August 2020, p. 12.
[44] Schaaf & Wheeler, *Google San Jose Hydrology and Flood Control Measures*, August 2020, p. 5.
[45] Schaaf & Wheeler, *Google San Jose Hydrology and Flood Control Measures*, August 2020, pp. 6 and 9.

analysis also determined that doing so would not increase flood risk for adjacent parcels, leaving only small portions of the project site within "Zone A" for flood risk.[46] See **Figure 3.8-3, Overland Flow Impacts**. Development in such areas would have to comply with the City's Requirements for Special Flood Hazard Areas, pursuant to City Code of Ordinances Chapter 17.08, which requires the City's Floodplain Administrator to review building permit applications to determine that buildings and structures would be protected against flood damage.

However, because subsequent approvals from other local, state, and federal agencies are required for the bridge replacement and channel rehabilitation, there is uncertainty as to the timing and ability to pursue these improvements. As such, if these features were not constructed, development could occur in other areas of existing flood risk as identified on FEMA flood maps and/or the best available data from the City or Valley Water. Such development would alter the existing drainage pattern of the project site, which could substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site. Accordingly, the project's hydrologic analysis included two other scenarios (i.e., no channel rehabilitation or bridge replacement, and only bridge replacement) and determined that under these scenarios, structures at additional blocks throughout the project site would be subject to an increased risk for flooding and would need to be elevated above grade or flood-proofed.[47] In such scenarios, development would alter the existing drainage pattern of the project site with the potential to increase the rate or amount of surface runoff and result in additional flooding risk for areas within the City's right of way.[48] A summary of the impacts associated with each of these scenarios is presented below.

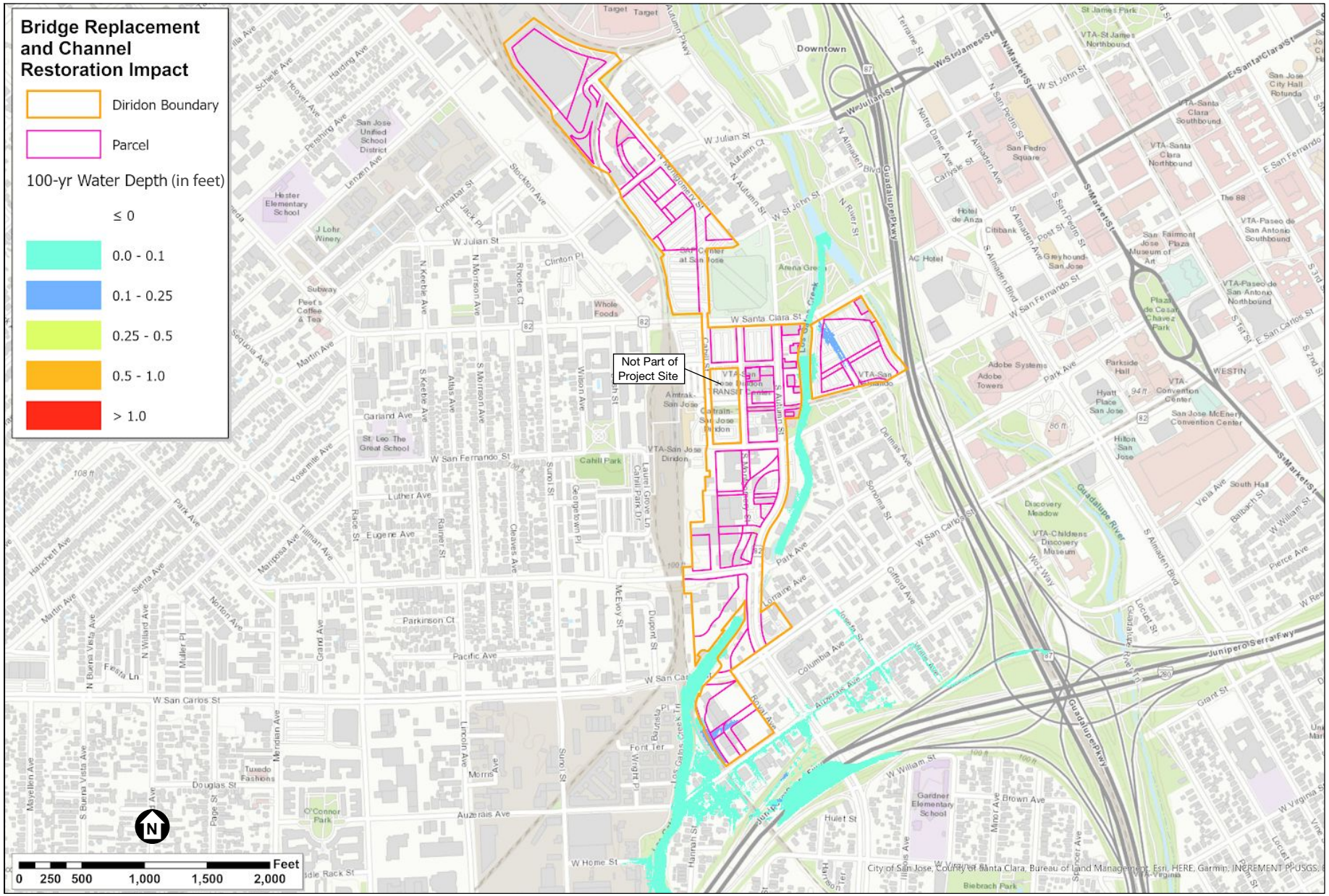
With bridge replacement and channel rehabilitation scenario

Even with the proposed bridge replacement and in-stream channel rehabilitation, minor flooding could occur. Effects would be limited to streets within the proposed development, which could experience a less than 0.25-foot increase in base flood elevation, as described in Appendix H2 and depicted on Figure 3.8-3. Project structures remaining in floodplain would be elevated or flood proofed, consistent with City Code Chapter 17.08. However, the magnitude and extent of flooding would be reduced throughout the project site and under this scenario, there would be no impact on adjacent parcels with respect to impeding or redirecting flood flow.

Without bridge replacement and without channel rehabilitation scenario

Project structures proposed for placement in the floodplain would be elevated or flood proofed and effects under the scenario with no bridge replacement or channel rehabilitation would be limited to a maximum isolated 1.1-foot rise in overland flow base flood elevations within the City right-of way and thus, would not be have a direct significant impact on property or public safety.

[46] Schaaf & Wheeler, *Google San Jose Hydrology and Flood Control Measures*, August 2020, pp. 6, 9, and 12.
[47] Schaaf & Wheeler, *Google San Jose Hydrology and Flood Control Measures*, August 2020, pp. 8–9.
[48] Schaaf & Wheeler, *Google San Jose Hydrology and Flood Control Measures*, August 2020, pp. 13–14.



SOURCES: Valley Water, Schaaf & Wheeler, 2020

Downtown West Mixed-Use Plan

Figure 3.8-3
Overland Impacts to Flood Flows with Channel Rehabilitation and Bridge Reconstruction

With bridge replacement but without channel rehabilitation scenario

With bridge replacement and no channel rehabilitation, project effects would be limited to a maximum isolated 0.4-foot rise in overland flow base flood elevation; with an isolated area (contained within the channel of Los Gatos Creek) with greater than one-foot increase in base flood elevation. Under this scenario although flooding could occur, project structures would be elevated or flood proofed and impacts would be less than significant.

However, under any of these scenarios, flooding could occur and potentially exceed of the City's adopted performance standards, which would be considered a significant impact. As the final design scenario has not been selected, mitigation would be required to address potential impacts. Such mitigation would provide for flood risk analysis to be integrated into the final design (in consultation with Valley Water, and the City) prior to construction. To ensure that potential impacts associated with the project's flood risks would be reduced to less than significant levels.

Mitigation Measure HY-3a, Flood Risk Analysis and Modeling, would be implemented. Mitigation Measure HY-3a addresses potential substantial increases in the rate or amount of surface runoff resulting in an increased flood risk associated with the alteration of existing drainage patterns within existing flood risk areas (as identified on FEMA flood maps and/or the best available data from the City or Valley Water). To provide for an integrated plan for ongoing maintenance of Los Gatos Creek (in the event that in-channel rehabilitation is undertaken), **Mitigation Measure HY-3b, Plan for Ongoing Creek Maintenance**, would be implemented. Mitigation Measure HY-3b would ensure that stream maintenance activities not conflict with the ongoing Valley Water stream maintenance program and shall be coordinated with the City, in consultation with the appropriate jurisdictional agencies. With adherence to existing regulations and implementation of Mitigation Measures HY-1, HY-3a, and HY-3b, potential impacts associated with runoff and flooding would be reduced to **less-than-significant** levels **with mitigation incorporated**.

Mitigation Measures

Mitigation Measure HY-1: Water Quality Best Management Practices during Construction Activities in and near Waterways (refer to Impact HY-1)

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

Once the final design is complete and before the issuance of any building permit for any portion of the project potentially subject to flooding according to FEMA flood maps and/or the best available data from the City or Valley Water, the project applicant for the specific work proposed shall conduct a hydrologic analysis of the final project design to address flood risks.

The project applicant shall prepare a thorough hydrologic technical evaluation and demonstrate that the project poses minimal flood risk to occupants, residents, visitors, and surrounding properties. The project design shall be modified to minimize the impacts of the proposed development and shall be submitted to the City for review and approval. The design shall ensure that proposed new structures are elevated or flood-proofed above the 1 percent (100-year) base flood elevation, consistent with the City's adopted

performance standards[49] that limit development within a special flood hazard area (Zone A) unless demonstrated that the cumulative effect of the proposed development not increase the water surface elevation of the base flood more than 1 foot at any point within the City of San José.

The hydrologic technical evaluation shall demonstrate that after construction of the new structure(s), floodplain encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge for existing adjacent structures or, for those structures located in the 100-year floodplain under existing conditions, the project shall not result in increases in the base flood elevation of more than one foot, consistent with the City's adopted performance standard.

Final design measures shall be developed in consultation with Valley Water, subject to review and approval by the City Department of Public Works and Department of Planning, Building and Code Enforcement. Measures could include any of the following:

- Use in-stream and associated floodplain restoration strategies in the riparian corridor to expand a greenway along Los Gatos Creek and conduct associated floodplain restoration.
- Remove existing obstructions to flood conveyance, such as channel debris or existing structures within the floodway.
- Upgrade the City's storm drain network.
- Install protective infrastructure for subsurface structures to reduce the risk of inundation.
- Raise the level of the project's structures to minimize risks to occupants and the surrounding community.
- Flood-proof project structures with, including but not limited to, permanent or removable standing barriers, garage flood gates, or automated flip-up barriers.

Mitigation Measure HY-3b: Plan for Ongoing Creek Maintenance

In the event that the project includes channel rehabilitation, within 30 days of completion of the initial restoration program within Los Gatos Creek, the project applicant shall submit to Valley Water and to the Director of Planning, Building, and Code Enforcement for review and approval a plan for ongoing maintenance of the affected reach of Los Gatos Creek. The Plan shall be consistent with the conditions in the existing permits for Valley Water's ongoing stream maintenance program and/or shall be subject to its own project-specific permitting regime, subject to jurisdictional agency review and approval.

Significance after Mitigation: Less than significant.

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[49] City of San José, *City of San José Code of Ordinances*, Title 17, Buildings and Construction; Chapter 17.08, Special Flood Hazard Areas; Part 5, Requirements; Section 17.08.640, New Developments. Available at https://library.municode.com/ca/san_jose/codes/code_of_ordinances?nodeId=TIT17BUCO_CH17.08SPFLHAARE_PT5RESPFLHAAR_17.08.640NEDE. Accessed January 15, 2020.

Impact HY-4: The proposed project could create or contribute runoff water that could exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, or impede or redirect flood flows. ***(Less than Significant with Mitigation)***

The proposed project would substantially alter the site's existing drainage but would reduce impervious surfaces by approximately 9 percent. The project would include placement of straw wattles, silt fences, and other erosion control measures to reduce the potential for erosion or siltation near waterways, in conformance with applicable development design standards and guidelines, as described in Section 2.11, *Flood Control Improvements*. These development design standards would be consistent with City policies for stormwater management and flood protection.

In addition, the proposed project would upgrade green stormwater infrastructure (GSI), to accommodate stormwater drainage or tie into the City's storm drain network. The specific measures to be taken would be determined during final project design, and would be subject to City review and approval. The project design includes an improved storm drain network that could incorporate stormwater facilities with bioretention, flow-through planters, pervious paving, green roofs, and possibly rainwater harvesting or infiltration facilities. Where public streets proposed for modification contain stormwater drainage structures that would trigger treatment recommendations from the GSI Plan, the streets would be designed to incorporate stormwater treatment facilities (pervious paving and/or biofiltration elements) in the public right-of-way. Private blocks 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 would incorporate recommendations from the GSI Plan to limit contamination in stormwater runoff. Specific measures may include biofiltration for pollutant source control, capture, and remediation and landscaping with native plants, which would be installed and maintained as part of the proposed project.

The proposed project would include planned stormwater collection and treatment infrastructure designed to accommodate project-related stormwater drainage from within the development footprint. The proposed stormwater improvements are designed to convey 10-year flood flows at a hydraulic grade level below the street elevation, consistent with City development standards, so that the system would not exceed its capacity. Thus, the project would be constructed and maintained in a manner consistent with the GSI Plan's goals for the management of municipal stormwater and compatible with the objectives of the San José Urban Pollution Prevention Program.

As discussed in Impact HY-3, replacement of the West Street San Fernando bridge and channel rehabilitation of Los Gatos Creek would involve alterations within the channel of Los Gatos Creek but would improve stream conveyance and reduce flooding risks.

Through compliance with existing regulations and implementation of Mitigation Measures HY-1 and HY-3a and HY-3b, impacts associated with the project's alteration of existing drainage patterns, impervious surfaces, and/or the channel of Los Gatos Creek related an increased potential for capacity exceedances and runoff or impeding or redirecting flood flows would be **less than significant with mitigation incorporated**.

Mitigation Measure

Mitigation Measure HY-1: Water Quality Best Management Practices during Construction Activities in and near Waterways (refer to Impact HY-1)

Mitigation Measure HY-3a: Flood Risk Analysis and Modeling (refer to Impact HY-3)

Mitigation Measure HY-3b: Plan for Ongoing Creek Maintenance (refer to Impact HY-3)

Significance after Mitigation: Less than significant.

Impact HY-5: The proposed project could risk release of pollutants in a flood hazard, tsunami, or seiche zone due to project inundation. ***(Less than Significant with Mitigation)***

The proposed project is not located in an area that would be subject to inundation by tsunami or seiche; thus, there is no risk for the release of pollutants as a result of these hazards.

As described under Impact HY-3, the project is proposed for a location that is partially subject to flooding. As noted in Table 3.8-1, more than 20 acres (up to 35 percent) of the project site is proposed for development in an area identified by FEMA as Zone X. Figure 3.8-2 depicts an updated flood scenario, based on modeling by Valley Water. The model suggests that with creek restoration and bridge replacement, the depth and extent of potential flooding would be reduced. However, development on portions of up to five project blocks would need to be raised above the existing grade or flood-proofed because their locations remain within "Zone A," where flood levels could exceed 1 foot of vertical inundation in a 100-year flood event.[50] Thus, implementation of Mitigation Measures HY-1, HY-3a, and HY-3b would ensure that the final design for the proposed project does not increase flood risks for the site and surrounding communities.

The project's hydrologic analysis also evaluated options for alleviating flooding conditions based on engineering models for two other development scenarios (elevating or flood-proofing structures only with no channel rehabilitation or bridge replacement, and elevating or flood proofing structures with bridge replacement but no channel rehabilitation).[51] As detailed in Section 2.11, *Flood Control Improvements*, the proposed project is designed such that the ground floor of buildings would be flood-proofed or constructed at an elevation above the modeled flood elevation. As the preferred design option, the project proposes to reduce the number of structures requiring flood-proofing or elevation by removing the existing pile-supported West San Fernando Street bridge over Los Gatos Creek and replacing the structure with a clear-span bridge, while also undertaking in-stream restoration and ongoing creek maintenance to increase flood capacity. These changes would improve conditions for flood conveyance and reduce flood risks for the site and surrounding community.[52] As discussed in Impact HY-3, in scenarios where the bridge replacement or channel

[50] Schaaf & Wheeler, *Google San Jose Hydrology and Flood Control Measures*, August 2020.
[51] Schaaf & Wheeler, *Los Gatos Independent QC and Revisions to Final HEC-RAS Model*, December 2019.
[52] Another, but not preferred, option would be to raise portions of the project site out of the floodplain.

rehabilitation is not pursued and additional portions of the site or surrounding community would be subject to flood risks, Mitigation Measures HY-1, HY-3a, and HY-3b would be implemented.

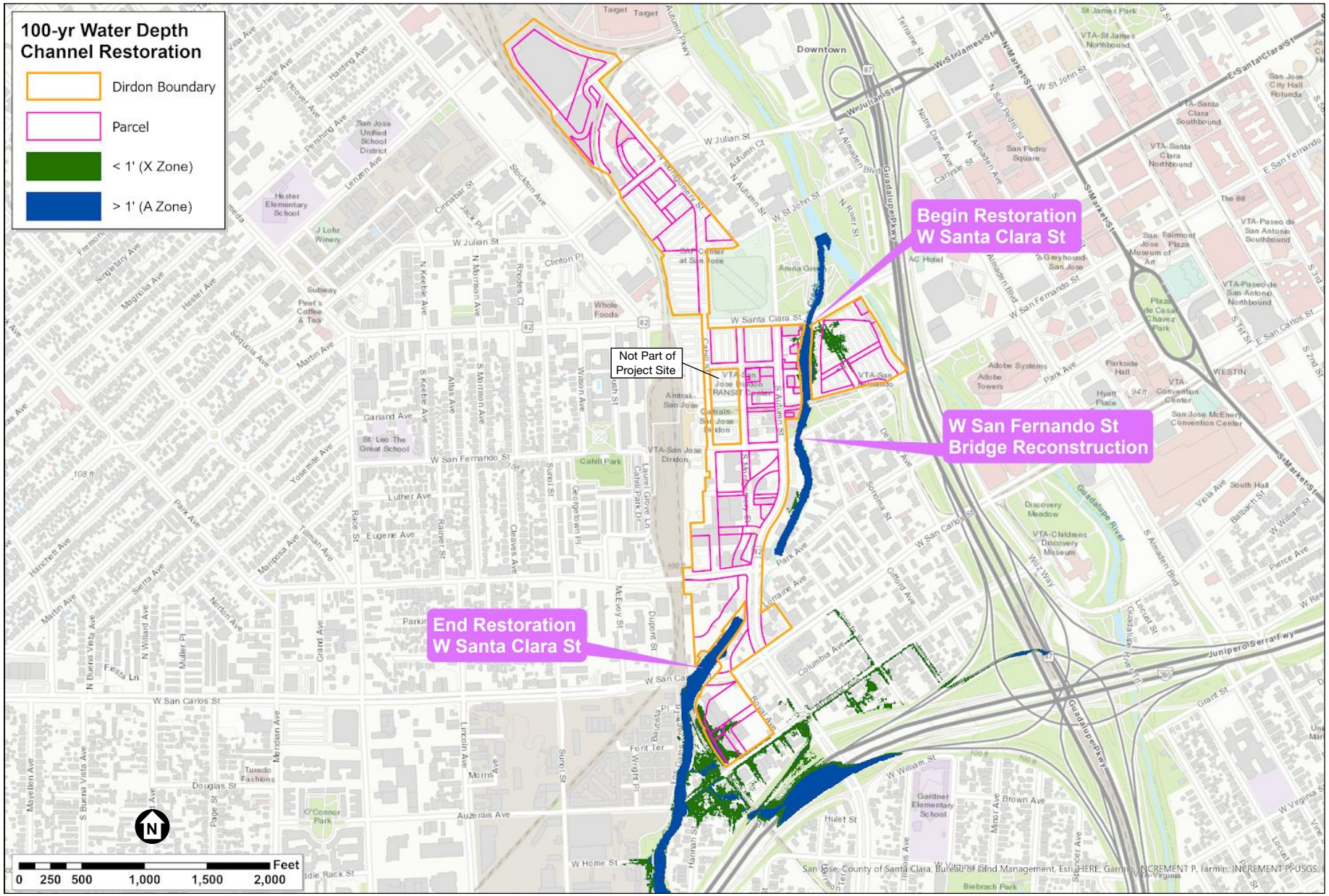
Because flood inundation can also result from inadequate stormwater drainage, the City developed an assessment of the capacity of the existing storm system for the project area and greater watershed as part of its ongoing storm drain master plan project. Two improvements were modeled within the project site boundary to assess storm drain flooding. The analysis determined that upgrading the City's stormwater conveyance system, including increasing the capacity of existing drainage infrastructure and constructing new pipes, would reduce the flood risk for the project site in a 10-year flood event.[53]

The southern and eastern portions of the project site, including the area nearest to the confluence of Los Gatos Creek and the Guadalupe River, are located within the creek's 100-year floodplain; thus, the project site and surrounding sites east of these waterways would be at risk of flooding from Los Gatos Creek. Consistent with City regulations for new development in special flood hazard areas, the project design calls for raising the ground elevation or flood-proofing development on blocks that remain within Zone A of the 100-year floodplain under a design scenario that would include flood conveyance improvements and remove existing bridge obstructions. This analysis is based on the Valley Water hydraulic model and is depicted on **Figure 3.8-4**.

All structures designated solely for residential land uses would be required to be elevated. In the event that residential uses and below-grade parking is proposed in a Zone A flood zone, such a structure would be designed as a mixed-use facility, allowing for commercial, retail, or office use within the structure. Mixed-use structures would be dry flood-proofed or elevated so that the lowest final grade to the foundation and all entrances would be above the modeled flood elevation. Ground level of these buildings would be at an elevation of, at minimum, 1 foot above the base flood elevation levels determined to be adequate by flood modeling conducted for the project; or the buildings would be designed as mixed use, and dry flood-proofed to that same elevation with all residential uses elevated.

Working in collaboration with the City, applicable landholders, and resource agencies, the project would improve Los Gatos Creek by removing the existing West San Fernando Street bridge and columns supporting the structure and replacing them with a clear-span structure to increase the creek's floodwater conveyance capacity. Initial conveyance and habitat improvements would include creek restoration, removal of dead and live trees, and removal of debris, along with installation of engineered fish habitat enhancement log structures. Ongoing maintenance of the channel would occur in coordination with Valley Water's stream maintenance program for flood control.

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



SOURCES: Valley Water, Schaaf & Wheeler, 2020

Downtown West Mixed-Use Plan

Figure 3.8-4
100-year Floodplain with Channel Rehabilitation
and Bridge Reconstruction Implemented

Improvements such as upgrades to the storm drain conveyance infrastructure would also be required to reduce potential flooding. The project proposes construction of a new larger storm drainage pipe in Cinnabar 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. These new storm drainage pipes would connect to an existing outfall across Autumn Parkway, between old West Julian Street and Howard Street, upstream of the railroad bridge—to be increased in size by the City as part of its ongoing Capital Improvement Program—that drains into the Guadalupe River. The pipe in North Montgomery Street south of Cinnabar Street would be increased in size. In West Santa Clara Street, the project would replace an existing storm drainage pipe with a larger pipe between Cahill Street and Los Gatos Creek; this new storm drain would discharge via a new 33-inch outfall to Los Gatos Creek, replacing an existing 18-inch outfall, as described in Impact HY-1. Also refer to Section 2.8.7, *Stormwater*, and Section 3.14, *Utilities and Service Systems*, Section 3.14.9, *Impacts and Mitigation Measures*.

In addition to these conveyance structures, a pump station near Park Avenue and South Montgomery Street is proposed for relocation, as described in Section 2.8.7. The locations proposed (within the same block, or within the existing street right-of-way if space is available) would not be within the 100-year flood zone, under any project design scenario, based on the updated Valley Water hydrologic model.

Mitigation Measure HY-3a and Mitigation Measure HY-3b would be implemented to address flooding risks. As a result, this impact would be **less than significant with mitigation incorporated**.

Mitigation Measure

Mitigation Measure HY-3a: Flood Risk Analysis and Modeling (refer to Impact HY-3)

Mitigation Measure HY-3b: Plan for Ongoing Creek Maintenance (refer to Impact HY-3)

Significance after Mitigation: Less than significant.

Impact HY-6: The proposed project could conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. *(Less than Significant with Mitigation)*

For the purposes of this analysis, the San Francisco Bay Regional Water Quality Control Board's Basin Plan and the *2016 Groundwater Management Plan: Santa Clara and Llagas Subbasin* (described in Section 3.8.2, *Regulatory Framework*) are the relevant plans that pertain to this criterion for consideration of project impacts.

Construction

As discussed in Impact HY-1, the proposed project would comply with the conditions stipulated in the Construction General Permit and would include BMPs to minimize impacts related to site

runoff. Erosion control measures and site management would reduce sedimentation and the associated delivery of pollutants into Los Gatos Creek or the Guadalupe River. Therefore, the project would not conflict with or obstruct implementation of the Basin Plan.

Mitigation Measures HA-3b and HA-3c would be implemented so that the proposed project would not contaminate groundwater resources. Mitigation Measure HA-3b includes procedures to follow in the event of potential soil and groundwater contamination. Mitigation Measure HA-3c requires preparing and planning for the safe handling of contaminants so that excavated materials and dewatering effluent (generated during project construction) would be handled, transported, and disposed of in a manner consistent with public health and safety and applicable regulations, as described in Section 3.7, *Hazards and Hazardous Materials*. Regulatory agencies would review the Soil and Groundwater Management Plan before construction or issuance of grading permits. Such preparation would reduce the likelihood of groundwater contamination. As a result, this impact would be **less than significant with mitigation incorporated**.

Mitigation Measures

Mitigation Measure HA-3b: Health and Safety Plan (refer to Section 3.7, *Hazards and Hazardous Materials*)

Mitigation Measure HA-3c: Site Management Plan (refer to Section 3.7, *Hazards and Hazardous Materials*)

Significance after Mitigation: Less than significant.

Operation

The project proposes to construct up to 7.3 million gross square feet of office space; up to 5,900 residential units; up to 500,000 gross square feet of active uses; up to 300 hotel rooms; up to 800 rooms of limited-term corporate accommodations, and an event and conference center. All of these uses would require water or otherwise place demands on the water supply, much of which is acquired from groundwater resources. Growth in Downtown San José resulting from the proposed project would be within the citywide growth parameters identified in the General Plan. The project would require amending the Diridon Station Area Plan to accommodate land use changes proposed by the project. The proposed project would generate demand for groundwater resources but would implement multiple design measures to offset that demand, such as conservation measures and development of recycled water facilities including an on-site water reuse facility or connection to the City's recycled water line.

The proposed project's water supply assessment (Appendix H1) acknowledged that groundwater levels vary because of periodic droughts and increased demands. However, the assessment demonstrated (based on a 90-year data set) that the groundwater elevation in the Santa Clara Valley Subbasin has rebounded in recent years and stated that storage in the basin is now within the normal range.[54] San Jose Water and Valley Water actively participate in water conservation programs to compensate for reductions in water supply caused by drought or climate change. As summarized in the water supply assessment, the increased demand associated with the proposed

[54] San Jose Water, *Downtown West Mixed-Use Project Water Supply Assessment*, January 2020.

project is consistent with San Jose Water's 2015 Urban Water Management Plan, which projected a 12.3 percent increase in total system demand between actual 2013 demand and projected 2040 demand. Thus, the proposed project would not exceed projected use and would not result in conflicts with respect to sustainable groundwater management.

As appropriate, the proposed project would pave public spaces as pervious surfaces to allow infiltration and recharge of groundwater. As designed, the project proposes an estimated 9 percent net reduction in impervious surfaces on the site, compared to existing conditions. The project would not extract on-site groundwater, and therefore, is not expected to contribute to subsidence. The project would improve groundwater recharge conditions while also allowing for biofiltration, effectively providing source control of pollutants. Thus, the project would be generally consistent with the objectives for sustainable management of groundwater resources, which include managing groundwater to optimize water supply reliability and minimize land subsidence, and protecting against groundwater contamination. The project would also include mitigation to protect groundwater quality and would not conflict with the South Santa Clara Basin Groundwater Management Plan.

As described in Section 3.7, *Hazards and Hazardous Materials*, some of the project's parcels are likely to contain contaminants in the soil and groundwater, which could contaminate surface water and/or groundwater if handled improperly. Mitigation Measures HA-3b and HA-3c would be implemented to ensure that surface water and groundwater quality would be protected during project construction. With implementation of these mitigation measures, operation of the proposed project would not conflict with the water quality objectives identified in the Basin Plan, and this impact would be **less than significant with mitigation incorporated**.

Mitigation Measures

Mitigation Measure HA-3b: Health and Safety Plan (refer to Section 3.7, *Hazards and Hazardous Materials*)

Mitigation Measure HA-3c: Site Management Plan (refer to Section 3.7, *Hazards and Hazardous Materials*)

Significance after Mitigation: Less than significant.

Cumulative Impacts

The geographic scope for potential cumulative hydrology and water quality impacts consists of the project area and surrounding watershed lands. The temporal scope for potential cumulative impacts includes the time frame for construction and would be considered permanent for ongoing operation of the project.

The analysis of potential cumulative impacts on hydrology and water quality considers the cumulative projects shown on Figure 3-1 and listed in Appendix B. The analysis focuses on cumulative adverse effects on water quality from construction and operation of the proposed project, when considered along with past, present, or reasonably foreseeable future projects.

Impact C-HY-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the site vicinity, could result in a considerable contribution to cumulative impacts on hydrology and water quality. ***(Less than Significant with Mitigation)***

The majority of future development that could affect hydrology and water quality would be required to comply with the requirements listed in Section 3.8.2, *Regulatory Framework*, including the San José Green Stormwater Infrastructure Plan and the General Plan goals and City Policies 6-29 and 8-14, to reduce and/or avoid potential adverse environmental effects. As such, cumulative impacts on hydrology and water quality would generally be mitigated on a project-by-project basis, and in accordance with the established regulatory framework, through the regulatory review process.

Construction of the proposed project could cause degradation of water quality by increasing soil erosion and sedimentation of water bodies as a result of stormwater runoff, or through accidental releases of hazardous materials. In addition, discharges of dewatering effluent from excavated areas could adversely affect water quality (refer to Impact HY-1).

Nearly all the cumulative projects identified in Table 3-1 (refer to Appendix B), as well as two large-scale projects in and near the proposed project site (Bay Area Rapid Transit [BART] Silicon Valley Phase II Project and the activity permitted under the Diridon Station Area Plan), would involve excavation and the use of heavy construction equipment close to Los Gatos Creek. The BART project would include construction of subsurface concourses and would implement BMPs and design measures based on rigorous geotechnical engineering. It is anticipated that construction of the BART station would occur within the same general time frame as the proposed project. Therefore, the cumulative projects, described above, would have the potential to degrade surface water quality through construction-related soil erosion or accidental discharges of hazardous construction chemicals.

Several cumulative projects could also require construction dewatering, similar to the proposed project. However, controls to prevent contamination of waterways would also be required for dewatering for these projects (as with the proposed project). The majority of the cumulative projects listed in Appendix B are not adjacent to waterways, which would limit direct effects on water quality.

As described in Impact HY-1, the project would comply with the Construction General Permit and MRP requirements, including implementation of BMPs to reduce impacts associated with runoff. The project would also implement mitigation measures to address potential impacts associated with in- or near-water construction; hazardous materials; and disturbance in riparian corridors; measures to re-vegetate habitat areas and conduct monitoring would also be implemented. This would protect surface waters from the water quality impacts associated with cumulative development in the watershed. Mitigation Measure HA-3c requires contractors to develop a groundwater dewatering control and disposal plan specifying how groundwater (dewatering effluent), if encountered, would be handled and disposed of safely, appropriately, and lawfully. Such measures would limit groundwater contamination and reduce the likelihood of a contribution to cumulative effects. Cumulative projects would have to comply with the same regulatory requirements and, where applicable, mitigation measures. This would substantially

limit the effects of any cumulative project, generally precluding cumulative significant impacts on hydrology and water quality.

With respect to the proposed project, adherence to the regulatory requirements and implementation of Mitigation Measures HY-1, BI-1a, BI-2a, HA-3b, and HA-3c as listed under Impacts HY-1 and HY-5, would ensure that the effects of the proposed project would not constitute a cumulatively considerable contribution to a significant cumulative impact. Impacts would be **less than significant with mitigation incorporated**.

Mitigation Measures

Mitigation Measure HY-1: Water Quality Best Management Practices during Construction Activities in and near Water (refer to Impact HY-1)

Mitigation Measure BI-1a: General Avoidance and Protection Measures (refer to Section 3.2, *Biological Resources*)

Mitigation Measure BI-2a: Avoidance of Impacts on Riparian Habitat (refer to Section 3.2, *Biological Resources*)

Mitigation Measure HA-3b: Health and Safety Plan (refer to Section 3.7, *Hazards and Hazardous Materials*)

Mitigation Measure HA-3c: Site Management Plan (refer to Section 3.7, *Hazards and Hazardous Materials*)

Significance after Mitigation: Less than significant.

Impact C-HY-2: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the site vicinity, could result in a considerable contribution to cumulative impacts related to potentially substantial decreases in groundwater supplies. ***(Less than Significant)***

The proposed project would develop mixed-use facilities anticipated to generate demands for potable water, presumably drawn in part from groundwater supplies in the region. Such demands could be considerable in a cumulative context, when viewed with other development projects. The project would result in a net reduction of impervious surfaces, which could enhance recharge capabilities in the Santa Clara Basin, offsetting some portion of this demand. The project's water supply assessment concluded that San Jose Water is able to meet the service area's needs through at least 2035 for average and single dry years without a call for water use reductions, and that the project's impact (with respect to water use) would not be consequential because it is located in a zone with many water supply inputs.[55]

Because the water supply assessment considered the proposed project in the context of cumulative development with water use demands with an extended time frame and determined proposed water use would not be consequential, it can be concluded fairly that the project's contribution to (the impact of decreases in groundwater supplies would not constitute a

[55] San Jose Water, *Downtown West Mixed-Use Project Water Supply Assessment*, January 2020. Summary (p. 16).

cumulatively considerable contribution to a significant cumulative impact. Furthermore, the project's net reduction in impervious surface area would increase recharge in the basin. Therefore, impacts would be **less than significant** when considered in a cumulative scenario.

Mitigation: None required.

Impact C-HY-3: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the site vicinity, could result in a considerable contribution to cumulative impacts related to flood hazards. ***(Less than Significant with Mitigation)***

Similar to the proposed project, many of the projects listed on Figure 3-1 (e.g., the Diridon BART station project) and other proposed developments would place fill or impervious surfaces in flood hazard areas. In the absence of measures to reduce flood risk, impacts from development of these projects, when combined with the impacts of the proposed project, could increase the flood risk.

However, regulatory requirements, such as City ordinances governing development in special flood hazard zones, are in place to reduce the risks of development in flood zones; these regulations include site design measures, subject to design review approval, to limit impacts. Like the proposed project, all potential concurrent development (if any) and future development would be required to demonstrate that the projects would not adversely affect or increase flood risk for the sites and surrounding areas, consistent with City General Plan policies and local codes pertaining to development in a Special Flood Hazard Area.

As described in Section 2.11, *Flood Control Improvements*, the proposed project would be designed with buildings placed at an elevation above the modeled flood elevation to the extent feasible; or the buildings would be flood-proofed, consistent with applicable City regulations, with protective measures installed to reduce flood risks to the site and surrounding community. To ensure that the proposed project would not contribute to a cumulative increase in base flood elevation consistent with the City's adopted performance standards, the project would implement Mitigation Measure HY-3a, Flood Risk Analysis and Modeling, which includes provisions such as the removal of existing debris and obstructions from Los Gatos Creek (as a flood control measure) and/or complete improvements to the riparian corridor to improve floodwater conveyance, based on an updated hydrologic model developed for the project (per Mitigation Measure HY-3a). Mitigation Measure HY-3b would ensure ongoing maintenance of Los Gatos Creek would occur in a manner consistent with Valley Water's existing stream maintenance program. Other projects would similarly have to address site-specific flood risks, where present, thereby avoiding any cumulative significant effects related to flooding.

The proposed project would implement Mitigation Measure HY-3a and, as applicable, Mitigation Measure HY-3b, as described under Impact HY-3, to demonstrate that the proposed project would not increase risks from development in identified flood hazard zones. With implementation of these mitigation measures, the proposed project would not result in or contribute to impacts associated with flood risk to the site and surroundings that would be cumulatively considerable. Therefore, with mitigation measures incorporated, the proposed project, when viewed in

combination with other past, present, or reasonably foreseeable future projects, would not result in a cumulative impact. Impacts would be **less than significant with mitigation incorporated**.

Mitigation Measures

Mitigation Measure HY-3a: Flood Risk Analysis and Modeling (refer to Impact HY-3)

Mitigation Measure HY-3b: Plan for Ongoing Creek Maintenance (refer to Impact HY-3)

Significance after Mitigation: Less than significant.
