INITIAL STUDY WITH PROPOSED MITIGATED NEGATIVE DECLARATION

2905 Stender Way

CoreSite SV9 Data Center

Prepared for:

City of Santa Clara
Community Development Department
1500 Warburton Avenue
Santa Clara, CA 95050

July 2020

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CoreSite SV9 DATA CENTER
2905 Stender Way
CEQ2020-01075

INITIAL STUDY
WITH PROPOSED
MITIGATED NEGATIVE DECLARATION (MND)

Prepared For:

City of Santa Clara
Community Development Department
1500 Warburton Avenue
Santa Clara, CA 95050

Prepared By:

Circlepoint
46 S First Street
San Jose, CA 95113

July 2020

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INITIAL STUDY AND ENVIRONMENTAL CHECKLIST FORM

1. Project title	CoreSite SV9
2. Lead agency name and address	City of Santa Clara, 1500 Warburton Avenue, Santa Clara, CA 95050
3. Contact person and phone number	Elaheh Kerachian 408-615-2450
4. Project location	2905 Stender Way, Santa Clara, CA 95054
5. Project sponsor's name and address	CoreSite, 1001 17th Street, Suite 500, Denver, CO 80202
6. General plan designation	Light Industrial
7. Zoning	*Existing:* Planned Development (PD) *Proposed:* Light Industrial (ML)
9. Description of project	As part of the project, the existing one-story structure and associated parking lot would be removed and replaced with a new, four-story, approximately 250,000 square foot data center. Average power consumption would be 48-megawatts (MW). Backup diesel generators would be installed to provide emergency power to the data center. The project would be constructed over a period of 36-48 months.
10. Surrounding land uses and setting	The 3.8-acre project site is zoned PD – Planned Development and was previously zoned Light Industrial. The project site is in Santa Clara south of Highway US-101 and west of the San Tomas Expressway. The project site has frontage on Stender Way. Surrounding land uses are predominantly industrial and there are no sensitive receptors within close proximity to the site.
11. Other public agencies whose approval is required (e.g. permits, financial approval, or participation agreements)	None

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "potentially significant impact" as indicated by the checklist on the following pages.

- ☐ Aesthetics
- ☒ Air Quality
- ☒ Cultural Resources
- ☒ Geology and Soils
- ☒ Hazards and Hazardous Materials
- ☐ Land Use and Planning
- ☒ Noise
- ☐ Public Services
- ☐ Transportation
- ☐ Utilities and Service Systems
- ☒ Mandatory Findings of Significance
- ☐ Agriculture and Forestry Resources
- ☒ Biological Resources
- ☐ Energy
- ☐ Greenhouse Gas Emissions
- ☐ Hydrology and Water Quality
- ☐ Mineral Resources
- ☐ Population and Housing
- ☐ Recreation
- ☐ Tribal Cultural Resources
- ☐ Wildfire

DETERMINATION

On the basis of this Initial Study:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

_____ _____

Name, Title Date

1 PROJECT DESCRIPTION

1.1 Project Location

The 3.8-acre project site is in the City of Santa Clara (City), in the Silicon Valley region of the larger San Francisco Bay Area. The project site is in the central part of the City, just south of US Highway 101 (US-101) and west of the San Tomas Expressway. Land use designations surrounding the project site consist of Light Industrial and Planned Industrial to the west, south, and east, Low Intensity Office/Research and Development to the north, and High Intensity Office/Research and Development farther to the west. The project site is currently zoned as Planned Development.

Surrounding development consists of one- to five-story buildings with large surface parking lots. Nearby uses include data centers, research and development buildings, biotech companies and other digital technology-oriented uses. Buildings are generally set back from the street by landscaped areas, fencing and surface parking. Street-side trees occur intermittently throughout the area, often breaking up views of existing buildings from the street.

The project site is bound by Central Expressway to the south, Stender Way to the west, adjacent buildings to the north, and San Tomas Aquino Creek to the east. CoreSite's SV3, SV4, SV5, SV6, SV7 & SV8 data centers are immediately west of the project site along Stender Way and Coronado Drive. Corporate offices for ON Semiconductor (Semiconductor supplier) are immediately to the north while San Tomas Aquino Creek and bike trail is to the east. There are various offices for Allegion, Crystal Instruments, AccuImage and Sentek Dynamics further to the east across the creek on Owen Street. **Figure 1** provides an overview map showing the location of existing data centers and other adjacent uses.

1.2 Site Conditions

The project site is located at the intersection of Stender Way and Central Expressway as shown on **Figure 1**. The project site is bound by a parcel to the north, Stender Way to the west, San Tomas Aquino Creek to the East and Central Expressway to the South. The assessor's parcel number is 216-29-108. The project site is developed with a single-story light industrial building and parking lot. The building is currently in use by several tenants leasing space. The existing building is set back from the roadway and parcel lines on all sides, and is surrounded on the west, north, and eastern sides with surface parking. The southern side of the building is set back from Central Expressway with landscaping, trees and a paved pedestrian walkway.

The project site has perimeter, ornamental landscaping along Stender Way and Central Expressway. The project site includes 39 ornamental trees, consisting of a mix of coast redwoods (*Sequoia sempervirens*),

Legend

Project Site

N

Not to Scale

Project Location Map Figure 1

Source: Google Earth, 2019

Canary Island pine (*Pinus canariensis*), London planes (*Platanus x acerifolia*) and other species. All trees on site are recommended for removal as a part of the project.[1]There are two curb cuts which allow vehicles to enter the site from Stender Way. Primary pedestrian access is also from Stender Way. The site includes utility connections (water, sewer, and electrical) and a Silicon Valley Power (SVP) utility easement that runs along the southern and western edge of the site. Additionally, there is an easement for electrical systems in favor of the City encompassing the existing transformer and conduit.

1.3 Project Components

As part of the project, the existing single-story building would be demolished, and the associated parking lot would be removed. A four-story, 250,000 square-foot data center (SV9) would replace the existing uses on the site. The SV9 data center would be approximately 85 feet in height and would house computer servers and supporting equipment for private clients. Clients would either use the project as a place to relocate their existing servers or as a place to operate new servers and expand their server capacity. Sixteen standby option, backup diesel generators (backup generators) would be added to the site to provide backup power to the SV9 data center in the event of an emergency.

At full buildout, the SV9 data center would have 48-megawatt (MW) connections to SVP service. The 48-MW service requirement for the SV9 data center would be met by the improvements made to SVP's nearby systems. A substation would be constructed on the SV9 data center site, however precise information on required off-site improvements to SVP facilities to support the SV9 data center is not known at this time. For the purposes of this analysis, it is assumed that the SV9 data center would operate using 48-MW from opening day. This ensures that the maximum greenhouse gas emissions are captured.

Site improvements would include the SV9 data center building, a covered loading dock, exterior lighting, gated driveway access, parking lot, and perimeter landscaping (see **Figure 2**).

Building Design

The SV9 data center would be steel frame construction and would have an exterior aluminum composite panel system with materials chosen to match the texture and finish of adjacent CoreSite data centers. Elevations are shown in **Figure 3a** and **Figure 3b** and renderings of the SV9 data center are shown in **Figure 4**. Exterior glazing would break up the façade with large, continuous sections of glazing spanning from the base to the roofline. Rooftop equipment and the rooftop staircase access and elevator would be screened from view from the surrounding area by a louvered screenwall system 6.5 feet in height.[2] The screenwall would be set back from the roof edge. Backup generators for the SV9 data center would be housed at grade adjacent to both the SV9 build and new substation.

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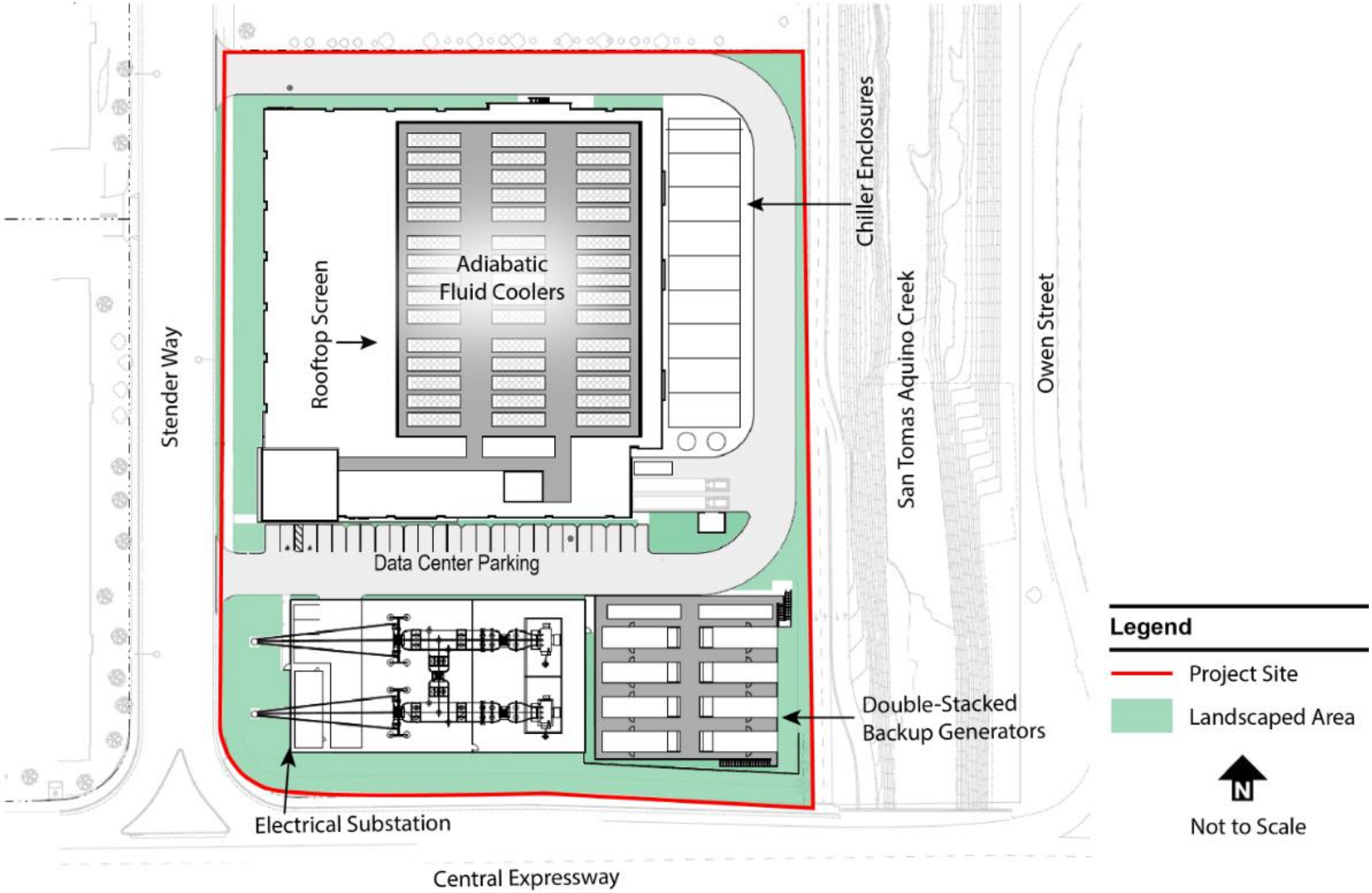
[1]Anderson's Tree Care Specialists 2019. *Tree Protection Report*, Published 2019.

[2]A louver is a horizontal slat that is placed at an angle. The louvered screenwall would be a fence-like system installed around the perimeter of the SV9 data center roof. Similar to a fence, it would screen views of the rooftop equipment from the street level.

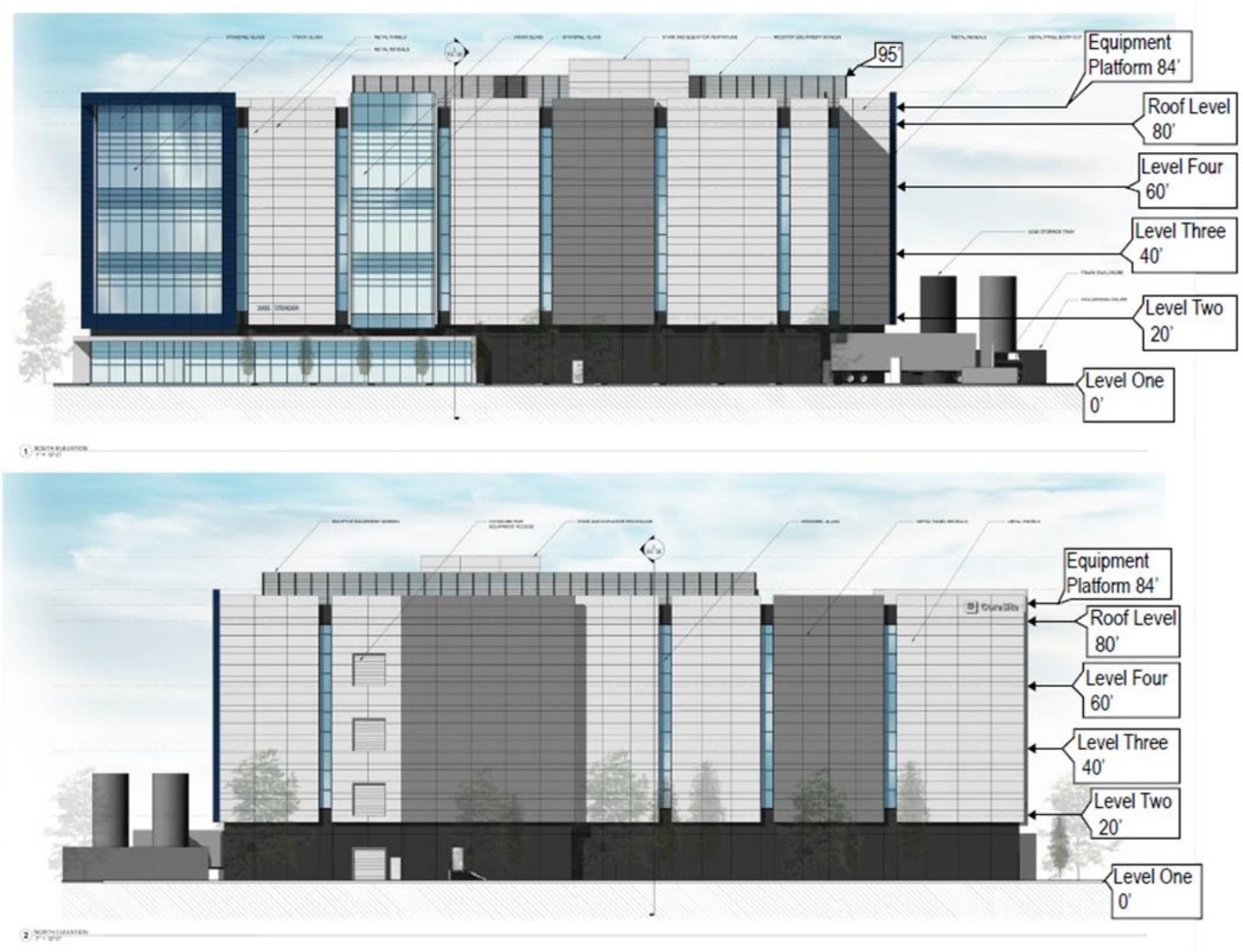


Site Plan Figure 2

Source: Circlepoint, 2020

Project Elevations Figure **3a**

Source: Circlepoint, 2020



Project Elevations Figure **3b**

Source: Circlepoint, 2020

Exterior Rendering Figure **4**

Source: Circlepoint, 2020

Major Equipment

Table 1-1 provides a list of the major equipment that would be located on site as part of the project.

Table 1-1 Major Equipment

Equipment	Quantity	Location
3500 kilowatt (KW) standby generators	16 (N+2 configuration)	SV9 yard, adjacent to the data center
Modular Chiller Plant Enclosures	9 (N+1 configuration)	SV9 yard, adjacent to the data center
Adiabatic Fluid Coolers	45	Data center rooftop

Source: CoreSite, 2019.

Parking and Site Access

The existing parking lot would be removed to construct the SV9 data center. The project site currently has a total of 250 parking spaces, including 8 accessible spaces consistent with Americans with Disabilities Act (ADA) requirements. The City acknowledges that data centers require less parking, and based on that recognition the City Code establishes a parking ratio for data centers of 1 space per 4000 square feet. Based on the City Code ratio, a total of 63 spaces are required, 26 of which are provided on site. The remaining 37 would be land banked. The parking lot would be provided along the southern side of the building.

As shown in **Figure 2** and described above, two primary site access points would remain from Stender Way, although driveway access would be gated on the northern access point. The design and dimensions of the driveways would be updated to meet the City's current design requirements as provided in the City's Standard Details. The two driveways along Stender would also provide access for service vehicles and fire trucks. Existing pedestrian access to the site from Stender Way would available at the south site access point only.

Landscaping and Trees

The project would include landscaping consistent with the surrounding buildings to comply with the City's design requirements. Construction of the SV9 data center and parking lot would require removal of 39 trees. There are nine trees (Blue atlas cedar, Raywood ash, Green ash) located on neighboring properties that would remain in place. All neighboring trees are expected to survive construction, except for one Raywood ash which was observed to be dead in Winter 2019. Trees would be replaced at a minimum 1:1 ratio on-site, with additional trees provided offsite to achieve a total replacement ratio of 2:1. Replacement plantings would include 36-inch box size canopy trees, such as Frontier Elm (*Ulmus x Frontier*), Allee Lacebark Elm (*Ulmus parvifolia 'Allee'*), Non-fruiting Sweetgum (*Liquidambar styraciflua 'Rotundiloba'*), Sweetgum (*Liquidambar styraciflua 'Worplesdon'*), and/or Cajeput Tree (*Melaleuca quinquinerva*). Final tree selections will provide year-round shade for sidewalks and will act as a wind buffer.

As shown in **Figure 2**, perimeter landscaping surrounding the existing building would be removed and partially replaced. New landscaping is proposed at the ends of the parking bays and replacement landscaping would be installed around the entire property boundary using a variety of climate appropriate tree, shrub and grass species. Vines and shrubs would be trained along the western and southern substation walls to provide additional buffer and increase aesthetic appeal. An SVP duct bank currently exists along the south and west side of the property. Coordination with SVP would be necessary to meet SVP standards for access to duct banks. No additional landscaping is proposed.

1.4 Project Operation

Backup Energy Supply

A data center relies upon a constant supply of power to allow servers to operate continuously: 24 hours per day, 7 days per week. To ensure continuous energy supply, the project would utilize sixteen 3.5-MW backup generators. The backup generators are designed to start up quickly in the event of a power failure. All generators would be located in the equipment yard of the SV9 data center building.

Emissions from combustion engines for stationary uses, including diesel generators, are regulated by the US Environmental Protection Agency (EPA). Engine emission standards have been categorized into a tiering system that designates maximum pollutant emissions. All new generators would have EPA Tier II engines and would be outfitted with diesel particulate filters. The generator engines would be fueled using ultra-low sulfur diesel fuel with a maximum sulfur content of 15 parts per million (ppm). All generator engines would be equipped with California Air Resources Board (CARB) Level 3 verified diesel particulate filters (DPFs) with a minimum control efficiency of 85 percent removal of particulate matter.

The generators would have maintenance testing performed throughout the year to ensure performance when needed during a power failure. All generators would be operated strictly in accordance with permitted hours as determined by the Bay Area Air Quality Management District (BAAQMD).

Generators would be installed in a double-stacked configuration. Each double-stack would be provided with a 13,000-gallon sub-base fuel storage tank. The top generator would have a 160-gallon diesel fuel tank installed next to the generator. The sub-base fuel storage tanks with be provisioned with fuel ports to allow refilling from the paved loop road surrounding the data center.

Additionally, the project would include uninterruptable power supplies (UPS) and direct-current (DC) plant energy equipment (batteries) for backup power. Batteries would provide enough energy to cover the critical load of 35-MW in the event of a power failure. UPS and batteries would be located on each of the four floors, adjacent to the computer room the system serves.

Battery technology for commercial UPS systems is lead-acid type. The batteries are placed in cabinets and installed next to the associated UPS module in a temperature-controlled room for optimum efficiency and battery life. The quantity of batteries is dictated by the length of time the back-up generators need to start and reach full operating power. This is typically less than 1 minute; however, a safety factor is added which results in an average of 5 to 6 minutes of battery power available.

Cooling

Servers convert electrical energy into heat as they operate and need to be kept cool. Therefore, cooling systems are a critical component of data center operation. Cooling systems would be installed to remove heat, ensuring servers operate safely and effectively. The project would include nine modular chiller plants located in the chiller yard adjacent to the SV9 data center. Adiabatic fluid coolers would be installed on the roof of the data center. Each 1,575-ton chiller would be supported by five adiabatic fluid coolers, for a total of 45 adiabatic fluid chillers. The adiabatic fluid coolers require minimal make-up water and would collectively use approximately 18 acre-feet annually, or 5,865,325 gallons. It is anticipated that the make-up water serving the adiabatic fluid coolers would have a single potable source. To supplement, two 15,000-gallon aboveground water storage tanks would be installed on site to provide 24-hours of make-up water in the event of temporary loss of water service. Aboveground water tanks would be installed adjacent to the modular chiller plants.

The make-up water would be chemically treated on-site before use to meet specifications for water quality. Biocides and scale and corrosion inhibitors would be injected into the stream to limit biological growth. Water treatment chemicals would be stored in pumphouse, located adjacent to the modular chiller plant to treat incoming potable water.

Employees

It is anticipated that up to 8 employees would typically be working in the building during daytime work hours, and up to 5 employees per shift would work in the building in the evening and overnight, for a total of up to 18 employees every 24 hours. As needed, technical support personnel would also be present on the site.

Vehicle Trips

Truck trips would occur during project operation to deliver and remove equipment as needed. Passenger vehicle trips to the site would be minimal, consisting of employees traveling to the site for work and occasional client visits.

Energy Usage

Major sources of energy demand for project operations would be client servers and the cooling system. The facility would use a maximum of 48-MW for a maximum load of 1,152,000 kilowatt-hours (kWh) daily. Overall, the daily power usage would vary depending on how many servers are up and running and how intensely the SV9 data center's clients are running their servers. The building would require very little lighting. Lighting would be used only to support small areas such as a security area, lobby, and office/conference room.

1.5 Construction

Construction would be completed in one phase over approximately 36-48 months. Conventional construction equipment would be used, such as excavators, backhoes, and both light-duty trucks and heavy-duty dump trucks. Truck trips are expected to reach the project site via US-101, San Tomas Expressway, Scott Boulevard, and Central Expressway in addition to Coronado Drive and Stender Way. Truck trips for off haul of excavated materials are expected to travel along these same routes and arterials to dispose of construction demolition debris.

1.6 Permits and Approvals

The project applicant is seeking a rezone from the current Planned Development (PD) zoning district to Light Industrial (ML), which will require City Council approval after a recommendation by the Planning Commission. The proposed height of the project, 85 feet, exceeds the maximum allowable height for the ML zoning district (70 feet), but is within the permissible range for a Minor Modification, which would be subject to the approval of the City Planner. The applicant will also be seeking a Minor Modification to land-bank a portion of the required parking.

The project will also be subject to the City's architectural review process, including a publicly noticed development review hearing conducted by the Director of Community Development.

2 ENVIRONMENTAL IMPACT CHECKLIST

2.1 Aesthetics

	Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including but not limited to: trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Discussion

The City's 2010-2035 General Plan (General Plan) is the primary source for identifying and determining scenic vistas and scenic resources throughout the City. The General Plan does not identify any scenic vistas or view corridors within the City. The General Plan Integrated Environmental Impact Report lists the Santa Cruz Mountains, Diablo range, San Tomas Aquino Creek, and the Guadalupe River as 'visual resources' within the City. The project site is adjacent to San Tomas Aquino Creek. The San Tomas Aquino Creek flows from the foothills of the Sana Cruz Mountains through Santa Clara for 17 miles, creating scenic views throughout the City. However, the portion of the Creek in the project site vicinity has been modified and lined with concrete creating a concrete channel that does not offer scenic views . Views of San Tomas Aquino Creek from the project site include the concrete channel with sediment, scattered vegetation, and algal growth. The project site is not located near any natural or historic features that are considered scenic resources by the City.

Scenic viewsheds are also important factors to consider when analyzing the aesthetic character of a project site. While a scenic vista is typically a singular scene or view, scenic viewsheds are areas of

particular scenic or historic value deemed worthy of preservation against development and other changes. According to the General Plan, the project site is not located within or near any scenic viewsheds. The California Department of Transportation (Caltrans) Scenic Highway Program has not designated any scenic highways or potentially eligible scenic highways in the project site vicinity.[1]

The site is within a fully developed, industrial area of the City. As detailed in **Section 1, Project Description,** surrounding development consists of one- to two-story office and industrial buildings including two other CoreSite data centers to the west, a construction supply store to the north, San Tomas Aquino Creek Trail to the east, and Central Expressway to the south. Across Central Expressway there are more data centers and industrial and commercial offices. Development across San Tomas Aquino Creek consists primarily of commercial office uses. Buildings are generally set back from the street by landscaped areas, fencing, and surface parking. Street trees occur intermittently throughout the area, often breaking up views of existing buildings from the street. Due to existing development, trees, urban infrastructure such as power lines, and slight topographical changes throughout the area, views are generally limited to one or two blocks in each direction when traveling on foot or in a vehicle. Views of the project site are shown in **Figure 5** through **Figure 7**.

The visual character of the project site is an urban built environment. Due to the presence of vegetation and intervening development, the site is visible from the immediate vicinity along Stender Way to the west, Owen Street to the east, and Central Expressway to the south. The project site is flat and has perimeter landscaping along Stender Way and Central Expressway, as described in **Section 1, Project Description**. The site is currently occupied by a one-story industrial building and paved parking areas. The existing one-story building is set back from the roadway by a landscaped area featuring a small lawn, trees, fencing, and a paved pedestrian walkway.

Viewers of the project would include drivers on Owen Street, Central Expressway, and Stender Way; employees and visitors of nearby businesses; and pedestrians and bicyclists using the adjacent San Tomas Aquino creek trail. The sensitivity of these viewers is considered low because their views of the project site would be brief and intermittent.

a) Would the project have a substantial adverse effect on a scenic vista?

No Impact. The project site is not located in or near any scenic vistas identified by the City. Additionally, views from the project site are dominated by other office and industrial buildings. Long-range views from the project site are obscured by existing development. Therefore, the project would not result impacts to a scenic vista.

[1] California Department of Transportation. *California Scenic Highway Mapping System*. Available: https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways. Accessed: February 2020.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. According to Caltrans' state scenic highway maps, there are no designated or eligible scenic highways in the project site vicinity.[3] Additionally, the project improvements would be entirely confined to the previously developed site. As previously discussed, San Tomas Aquino Creek flows from the foothills of the Sana Cruz Mountains through Santa Clara creating scenic views throughout the City. Many areas of the creek showcase a natural setting, providing scenic views. However, the portion of the creek that runs adjacent to the project site has been modified and lined with concrete, and is surrounded by industrial development. Views of San Tomas Aquino Creek in the project area are limited to trail users and nearby building occupants, but views are generally urban in nature and not considered scenic. The project would not obstruct views of the creek from the trail, or from other public viewpoints. Therefore, implementation of the project would not affect viewership of scenic resources, and the project would not impact scenic resources.

c) Substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less than Significant. The project would be consistent with the existing industrial character of the site. The data center would be three stories taller than the existing building but would be visually consistent within the larger urban context of contemporary office/research buildings and data centers surrounding the site and found throughout in the City. Around the project site, there are two 4-story data centers across Stender Way and a 2-story building directly to the north. **Figure 2**, **Figure 3a**, and **Figure 3b** demonstrate the proposed design of the data center, while the existing site and vicinity are shown in **Figure 1** and **Figure 5** through **Figure 7**. The exterior design of the data center would be similar to CoreSite's other data centers in the City including those adjacent to the project site. The project would be subject to review by the City's architectural review process, including a public hearing before the Director of Community Development, which would ensure the project conforms to the City's adopted Community Design Guidelines. The guidelines were developed to support community aesthetic values, preserve neighborhood character, and promote a sense of community and place throughout the City.

New landscaping, including trees, shrubs, and groundcover would be included along the sidewalk facing Stender Way and Central Expressway. Perimeter landscaping along Stender Way and Central Expressway would create a setback condition similar to the surrounding area. Similar to existing conditions, views of the project from the street and adjacent parcels would be broken up by trees

[3] California Department of Transportation. *California Scenic Highway Mapping System*. Available: http://www.dot.ca.gov/design/lap/livability/scenic-highways/index.html. Accessed: October 2019.

and landscaping. The visual character of the streetscape would continue to consist of industrial buildings set back from the roadway with fencing and intermittent trees and vegetation.

Views through the site are currently obstructed by the existing buildings and trees. With implementation of the project, the building height would be increased and views through the site would be further obstructed. However, obstructed views are consistent with visibility in the project vicinity. Furthermore, there are no scenic views or sensitive viewers in the project vicinity.

Employees of the nearby businesses are likely to be the most frequent visitors to the project area and therefore would be the most affected by the aesthetic change resulting from the project. Workers driving past the project site would generally perceive it briefly and within the context of surrounding, similar buildings. Other viewers of the project include pedestrians and cyclists using the San Tomas Aquino Creek trail. However, the addition of the data center would not obstruct views of the channel from the trail, and would be consistent with the existing visual character of the area. Therefore, the project would not adversely affect viewership. There are no residential areas with views of the project site. Views from the project site of the larger surrounding area are generally obstructed by existing industrial buildings. This would not change as a result of project implementation. Therefore, the project's impact on the visual character and quality of the site and vicinity would be less than significant and no mitigation would be required.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less than Significant. Under existing conditions, there is exterior lighting throughout the project site and vicinity. Existing exterior lighting is typical of industrial areas and is primarily on buildings and in parking lots for safety purposes. Nighttime light conditions are consistent with those generally found in urban environments, and include streetlights, ambient light from adjacent development, and exterior safety lighting. Project operation would require exterior safety lighting similar to the safety lighting found at nearby industrial buildings, including other CoreSite data centers. Exterior lighting would be limited to safety lighting in the parking lot, building exterior, and along pathways. Lighting would be designed and installed consistent with the City's design requirements for exterior lighting.

The exterior design of the project does not include large, continuous expanses of uninterrupted glazing which are generally associated with glare, and new major sources of glare are not anticipated. The project design includes glazing spanning from the base of the building to the roofline. However, it is non-continuous and not anticipated to result in notable glare. Additionally, the project would be subject to review by the City's architectural review process, which would ensure the project conforms to the City's adopted Community Design Guidelines. Therefore, the project would have a less-than-significant impact on day and nighttime views in the area resulting from lighting or glare and no mitigation would be required.

View of Project Site from Northeast (Existing Conditions) Figure 5

Source: Circlepoint, 2019

View of Project Site from Southeast (Existing Conditions) Figure **6**

Source: Circlepoint, 2019

View of Project Site from West (Existing Conditions) Figure **7**

Source: Circlepoint, 2019

2.2 Agriculture and Forestry Resources

	Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or with a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Discussion

The California Department of Conservation administers the Farmland Mapping and Monitoring Program (FMMP), California's statewide agricultural land inventory. Four classifications of farmland are considered valuable: Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance. Any conversion of land within these classifications is typically considered an environmental impact under CEQA. Other categories of land that are not protected by the Department of Conservation include Grazing Land, Urban and Built-up Land, and Other Land.

The project site is designated as Urban and Built-up Land by the FMMP.[5] The FMMP defines the Urban and Built-up Land category as land used for industrial and commercial purposes, golf courses, landfills, airports, sewage treatment, and water control structures.

According to California Public Resources Code (PRC) Section 12220(g), forest land is land that can support 10 percent native tree cover of any species under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.

California PRC Section 4526 defines timberland as land that is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmastrees. Land owned by the federal government and land designated by the State Board of Forestry and Fire Protection as experimental forest land is excluded as timberland.

a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), to non-agricultural use?

OR

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The project site is developed with industrial buildings and is zoned Planned Development (PD). The project site is not designated by the California Natural Resources Agency as farmland of any type and is not the subject of a Williamson Act (a statewide agricultural land protection program) contract.[5,6] Additionally, no land adjacent to the project site is designated as farmland. Therefore, implementation of the project would not impact farmland and would not conflict with zoning for agricultural use or a Williamson Act contract.

c) Would the project conflict with existing zoning for, or cause rezoning of, forest land, timberland, or a timberland production zone (as defined by Public Resources Codes 1220(g), 4526, and 51104(g) respectively?

No Impact. The project site is zoned for planned development uses and does not contain forest land or other similar resources. The project site is currently developed with a light industrial building. Therefore, the project would have no impact on forest land or timberland.

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[5] California Department of Conservation, Division of Land Resource Protection. *Farmland Mapping & Monitoring Program*. Available: https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed October 2019.
[6] County of Santa Clara, Department of Planning and Development. *Williamson Act and Open Space Easement*. Available: https://www.sccgov.org/sites/dpd/programs/wa/pages/wa.aspx. Accessed: October 2019.

d) Would the project result in a loss of forest land or conversion of forest land to non-forest use?

No Impact. As discussed in **question 2.2 "c"**, there is no forest land on the project site and none of the properties adjacent to the project site or in the vicinity contain forest land. Therefore, implementation of the project would not impact forest land or result in the conversion of forest land to non-forest use.

e) Would the project involve other changes in the existing environment which, due to their location and nature, could result in the conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact. See responses to **questions 2.2 "a" through "d"** above.

2.3 Air Quality

	Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☒	☐	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☒	☐	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Discussion

The following discussion is based in part on an air quality assessment prepared for the project in December 2019. A copy of this report is included as **Appendix A** to this Initial Study.

Setting

The project site is in Santa Clara County, within the San Francisco Bay Area Air Basin (SFBAAB). Ambient air quality standards have been established at both the State and Federal level for the SFBAAB. The Bay Area currently meets all ambient air quality standards with the exception of ground-level ozone (O_3), respirable particulate matter (PM_{10}) and fine particulate matter ($PM_{2.5}$). High O_3 levels are caused by the cumulative emissions of reactive organic gases (ROG) and nitrogen oxides (NOx) and can aggravate respiratory and cardiovascular diseases, reduce lung function, and increase coughing and chest discomfort. High particulate matter levels can aggravate respiratory and cardiovascular diseases, reduce lung function, increase mortality (e.g., lung cancer), and result in reduced lung function growth in children.

Toxic air contaminants (TAC) are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer) and include, but are not limited to, the criteria air pollutants listed above. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, state, and Federal level.

CARB and the U.S. EPA have adopted and implemented a number of regulations and emission standards for stationary and mobile sources to reduce emissions of diesel particulate matter (DPM). These include emission standards for off-road diesel engines, including backup generators, and regulatory programs that affect medium and heavy-duty diesel trucks that represent the bulk of DPM emissions from California highways.

Sensitive Receptors

CARB has identified the following persons who are most likely to be affected by air pollution: infants, children under 18, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, elementary schools, churches and places of assembly, and parks. The closest sensitive receptors to the project site are existing residences approximately 1,400 feet northwest.

BAAQMD

BAAQMD is the regional agency tasked with managing air quality in the region. At the State level, the CARB (a part of the California EPA) oversees regional air district activities and regulates air quality at the State level. The BAAQMD has published CEQA Air Quality Guidelines that are used in this analysis to evaluate air quality impacts.[7]

Santa Clara 2010-2035 General Plan

The City's General Plan includes goals and policies to reduce exposure of sensitive populations to air pollution and TACs. The following goals, policies, and actions are applicable to the project:

Air Quality Goals

5.10.2-G1 Improved air quality in Santa Clara and the region.

5.10.2-G2 Reduced greenhouse gas (GHG) emissions that meet the State and regional goals and requirements to combat climate change.

[7] Bay Area Air Quality Management District. 2017. *BAAQMD CEQA Air Quality Guidelines*. Published May 2017.

Air Quality Policies

5.10.2-P1 Support alternative transportation modes and efficient parking mechanisms to improve air quality.

5.10.2-P2 Encourage development patterns that reduce vehicle miles traveled and air pollution.

5.10.2-P3 Encourage implementation of technological advances that minimize public health hazards and reduce the generation of air pollutants.

5.10.2-P4 Encourage measures to reduce GHG emissions to reach 30 percent below 1990 levels by 2020.

5.10.2-P5 Promote regional air pollution prevention plans for local industry and businesses.

5.10.2-P6 Require "Best Management Practices" for construction dust abatement.

Significance Thresholds

In June 2010, BAAQMD adopted thresholds of significance to assist in the review of projects under CEQA. These thresholds were designed to establish the level at which BAAQMD believed air pollution emissions would cause significant environmental impacts under CEQA. The City has consistently applied the BAAQMD thresholds in its environmental documents.

The significance thresholds identified by BAAQMD and used in this analysis are summarized in **Table 2-1**. The BAAQMD's significance thresholds are described in their latest version of their BAAQMD CEQA Air Quality Guidelines issued in May 2017.

Table 2-1 BAAQMD Air Quality Significance Thresholds

Criteria Air Pollutant	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (lbs./day)	Average Daily Emissions (lbs./day)	Annual Average Emissions (tons/year)
ROG	54	54	10
NO_x	54	54	10
PM_{10}	82 (Exhaust)	82	15
$PM_{2.5}$	54 (Exhaust)	54	10

Source: Rincon 2019
Note: ROG = reactive organic gases, NO_x = nitrogen oxides, PM_{10} = course particulate matter or particulates with an aerodynamic diameter of 10 micrometers (µm) or less, $PM_{2.5}$ = fine particulate matter or particulates with an aerodynamic diameter of 2.5µm or less.

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less than Significant with Mitigation. The project would not conflict with or obstruct implementation of the BAAQMD's 2017 Clean Air Plan (Clean Air Plan) if it supports the primary

goals of the Clean Air Plan, includes relevant control measures, and does not interfere with implementation of Clean Air Plan control measures. The project supports the primary goals of Clean Air Plan, includes relevant control measures, and does not interfere with implementation of 2017 Clean Air Plan control measures, as described in detail below.

Goals of the Clean Air Plan

BAAQMD's Clean Air Plan focuses on two goals that are intertwined: protecting public health and protecting the climate. In support of these two broad goals, the Clean Air Plan outlines more detailed goals and objectives. These include:

- Attain all state and national air quality standards
- Eliminate disparities among Bay Area communities in cancer health risk from toxic air contaminants
- Reduce Bay Area GHG emissions 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050

The goals in the Clean Air Plan are implemented through emission reduction strategies, and BAAQMD permitting. These strategies were developed, in part, on regional population, housing, and employment projections prepared by the Association of Bay Area Governments (ABAG). Because data center uses are allowed under the project site's historical and proposed zoning (ML), it can be assumed that the project's use would be accounted for in the Clean Air Plan.

Consistency with the goals of the Clean Air Plan on a project level is primarily a question of consistency with the population, land use, and employment assumptions utilized in developing the Clean Air Plan, which were based on ABAG Projections. The project would not affect population as it would not include new housing or create a major source of employment. Implementation of the project would add a permitted data center use on the project site and would therefore not affect land use assumptions or vehicle miles travelled (VMT) forecasts used for Clean Air Plan projections. Consequently, development of the project would not conflict with population, land use, or VMT projections used to develop the Clean Air Plan planning projections. As such, the project supports the primary control goals of the Clean Air Plan.

The project would be subject to BAAQMD permitting. BAAQMD's permitting programs are developed to be consistent with the Clean Air Plan and to support its implementation. The project will need to obtain and remain in compliance with BAAQMD permits throughout the operational life of the data center. This would ensure project emissions are in line with the Clean Air Plan in its current form, as well as future applicable Clean Air Plans.

Relevant Control Measures

The project would implement **Mitigation Measure AQ-1,** which includes basic measures to control dust and exhaust during construction. Implementation of the measures recommended by BAAQMD and listed below would reduce the air quality impacts associated with grading and new construction

to a less than significant level. Therefore, the project contains measures relevant to the Clean Air Plan through implementation of **Mitigation Measure AQ-1:**

Mitigation Measure AQ-1: Include basic measures to control dust and exhaust during construction.

During any construction period ground disturbance, the applicant shall ensure that the project contractor implement measures to control dust and exhaust. Implementation of the measures recommended by BAAQMD and listed below would reduce the air quality impacts associated with grading and new construction to a less than significant level. The contractor shall implement the following best management practices that are required of all projects:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- All roadways, driveways, and sidewalks to be paved will be completed as soon as possible. Building pads will be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at the construction firm regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

<u>No Interference with Implementation of Clean Air Plan Control Measures</u>

The Clean Air Plan briefly describes 40 proposed stationary source measures. Eleven of the proposed measures focus primarily on reducing GHG emissions; the remainder of the stationary source

measures aim to protect public health by reducing emissions of criteria pollutants and TACs from oil refineries and other sources. Through implementation of **Mitigation Measure AQ-1** and **Mitigation Measure AQ-2** described below, the project would reduce emissions of criteria pollutants, consistent with stationary source control measures proposed in the Clean Air Plan. Therefore, the project would not interfere with implementation of Clean Air Plan control measures.

> **Mitigation Measure AQ-2:** In order to reduce NO_X emissions below the BAAQMD threshold, the applicant shall limit non-emergency operation (including testing and maintenance) of each backup diesel generator to no more than 18 hours per year.

This impact is considered less-than-significant with implementation of **Mitigation Measures AQ-1** and **Mitigation Measure AQ-2**.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Less than Significant with Mitigation. The Bay Area is considered a nonattainment area for ground-level O_3 and $PM_{2.5}$ under both the federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment for PM_{10} under the California Clean Air Act, but not under the federal Act. The area has attained both State and federal ambient air quality standards for CO. As part of an effort to attain and maintain ambient air quality standards for O_3, PM_{10} and $PM_{2.5}$, BAAQMD has established thresholds of significance for air pollutants. These thresholds are for O_3 precursor pollutants (ROG and NO_x), PM_{10} and $PM_{2.5}$ and apply to both construction period and operational period impacts.

Both construction and operational emissions were computed using the California Emissions Estimator Model, Version 2016.3.2 (CalEEMod). In addition, emissions from routine testing and maintenance of the backup generators were computed using emissions data published by the backup generator manufacturer and assuming maximum allowable testing conditions.

Construction Period Emissions

CalEEMod provided construction emissions estimates in tons per year. Average daily emissions were based on a construction start date of October 2020 and a duration of 395 days of heavy machinery usage. This represents the shortest possible construction period and therefore the highest possible average daily emissions.

This timeframe was used because emissions from heavy machinery are prorated on a daily basis; a longer construction period input into CalEEMod could show lower daily emissions. Total and average daily construction emissions are shown in **Table 2-2**. As indicated in **Table 2-2**, anticipated construction period emissions would not exceed the BAAQMD significance thresholds.

Table 2-2Construction Period Emissions

Description	ROG Emissions	NO_X Emissions	PM_{10} Exhaust Emissions	$PM_{2.5}$ Exhaust Emissions
Total construction emissions (tons)	1.5	2.9	0.3	0.2
Average daily emissions (pounds/day)[1]	*7.6*	*14.7*	*1.5*	*1.0*
BAAQMD Thresholds (pounds/day)[2]	*54*	*54*	*82*	*54*
Significant?	**No**	**No**	**No**	**No**

Source: Rincon, 2019
Note: ROG = reactive organic gases, NOX = nitrogen oxides, PM_{10} = particulate matter 10 microns in diameter or less, $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; lbs/day = pounds per day
[1] Average daily emissions (lbs/day) was calculated by dividing the total emissions by the total number of days construction activity with heavy machinery would occur, with a conservative assumption that all 395 days would be consecutive.
[2] Note the thresholds for PM_{10} and $PM_{2.5}$ apply to construction exhaust emissions only

Grading and construction activities would generate dust. The amount of dust generated would be highly variable and is dependent on the size of the area disturbed at any given time, amount of activity, soil conditions and meteorological conditions. Nearby areas could be adversely affected by dust generated during construction activities. Nearby land uses are primarily industrial and office uses that are separated by roadways or open areas, and do not include sensitive receptors. The BAAQMD CEQA Air Quality Guidelines consider these impacts to be less than significant if best management practices are employed to reduce these emissions. This impact is considered less-than-significant with implementation of **Mitigation Measures AQ-1**.

Operational Emissions

Operational emissions were computed on an annual basis for the project with land uses input to CalEEMod as described above for the construction period modeling. The primary emission sources associated with operation of the project would be from engine operation during testing or maintenance of the 16 3,500-kW backup generators. There would also be emissions from traffic and area sources. Emissions from these sources are detailed in **Table 2-3**.

The generators would be housed in individual enclosures located in the generator yard adjacent to the southern wall of the data center. The 16 generators would have a combined diesel fuel storage capacity of 61,696 gallons. Due to the low volatility of diesel fuel there would be minor evaporative emissions of ROG. Operation of the substation would result in negligible daily operational emissions.[8]

The project would include 16 backup generators on-site, which would be operated in the event of a utility failure. The generators would have maintenance testing performed throughout the year. To

[8] Operational emissions from the substation were assumed to be less than one pound per day of each criteria air pollutant and no modeling was conducted.

account for criteria pollutant emissions generated during maintenance testing activities, it was assumed that each backup generator would be operated for up to 50 hours per year, the maximum allowed operational time under BAAQMD stationary source permits. Average daily emissions were calculated based on BAAQMD guidance. However, criteria pollutant emissions were not calculated for emergency use scenarios such as a power failure, as BAAQMD stationary source permitting exempts emergency use.

To assess the project's net increase in criteria pollutant emissions on the project site, the emissions produced under existing baseline conditions were subtracted from the total project operational emissions as shown in **Table 2-3.**

Table 2-3 Net Project Operational Emissions (Project Minus Baseline)

Emission Source	ROG (*tpy/ (lbs/day*)	NO_X (*tpy/ (lbs/day*)	PM_{10} (*tpy/ (lbs/day*)	$PM_{2.5}$ (*tpy/ (lbs/day*)
BAAQMD Threshold	*10 (54)*	*10 (54)*	*15 (82)*	*10 (54)*
Project Operational Emissions	1.3 (7.2)	27.6 (151.1)	<0.1 (0.3)	<0.1 (0.2)
Existing Baseline Conditions	0.3 (1.8)	0.5 (2.6)	0.3 (1.7)	0.1 (0.5)
Net Project Emissions	**1.0 (5.4)**	**27.1 (148.5)**	**-0.3 (-1.4)**	**-0.1 (-0.3)**
Significant?	**No**	**Yes**	**No**	**No**

Source: Rincon, 2019
tpy = tons per year; lbs/day = pounds per day; ROG = reactive organic gases, NOX = nitrogen oxides, PM10 = particulate matter 10 microns in diameter or less, PM2.5 = particulate matter 2.5 microns or less in diameter
Note: Averages assume the project would operate 365 days per year. The first number in each cell is the annual emissions (tpy), and the second number is the daily emissions (lb/day).

Table 2-3 shows that combined emissions from project operation would exceed BAAQMD operational emissions thresholds for NO_X. No other criteria pollutant threshold would be exceeded. The exceedance of the NO_X annual and daily thresholds is associated with the operation of the diesel generators on site, which would require issuance of a permit from BAAQMD to operate. Operation of the 16 diesel generators 50 hours per year would result in approximately 27 tons of NO_X emissions annually. **Mitigation Measure AQ-2,** as described above, would be required to reduce annual and average daily NO_X emissions from the stationary sources on-site during operation to a less-than-significant level. This mitigation measure requires that generator testing and maintenance w be kept to no more than 18 hours per year per generator.

As shown in **Table 2-4**, with implementation of **Mitigation Measure AQ-2**, emissions from project operation would not exceed BAAQMD operation emissions thresholds for all criteria pollutants. This reduction is achieved by limiting the non-emergency operational hours of each generator to no more than 18 hours per year. Therefore, implementation of **Mitigation Measure AQ-2** would reduce this impact to a less-than-significant level.

Table 2-4 Project Net Operational Emissions after Mitigation (18 Hours Per Year)

Emission Source	ROG (*tpy/ (lbs/day*)	NO_X (*tpy/ (lbs/day*)	PM_{10} (*tpy/ (lbs/day*)	$PM_{2.5}$ (*tpy/ (lbs/day*)
BAAQMD Threshold	*10 (54)*	*10 (54)*	*15 (82)*	*10 (54)*
Net Annual Emissions[1]	0.9 (4.6)	9.3 (53.2)	-0.29 (-1.6)	-0.09 (-0.4)
Significant?	**No**	**No**	**No**	**No**

Source: Rincon 2019

tpy = tons per year; lbs/day = pounds per day; ROG = reactive organic gases, NOX = nitrogen oxides, PM10 = particulate matter 10 microns in diameter or less, PM2.5 = particulate matter 2.5 microns or less in diameter

[1] Net annual emissions include project emissions (land use and stationary sources) minus existing baseline conditions emissions.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant. As discussed above, certain groups of people are more affected by air pollution than others. These groups are considered to be sensitive receptors. Locations that may contain sensitive receptors include residential areas, hospitals, daycare facilities, elementary schools and parks. The closest sensitive receptors to the project site are existing residences located approximately 1,400 feet northwest of the project site.

The project would be a source of air pollutant emissions during construction and operation, with the main source being backup generator testing and maintenance. The diesel-fueled generators emit diesel particulate matter (DPM), which is a TAC. The generators are also a source of $PM_{2.5}$, which has known adverse health effects.

Potential health impacts from generator testing and maintenance during project operation were evaluated using air quality dispersion modeling and applying BAAQMD-recommended health impact calculation methods. DPM concentrations and potential cancer risks from operation of the generators were evaluated at existing residences in the vicinity of the data center site. The maximum average annual off-site DPM concentrations were used to calculate potential increased cancer risks from the project. Average annual DPM concentrations were used as being representative of long-term (30-year) exposures for calculation of cancer risks.

The maximum modeled annual DPM and PM2.5 concentration from operation of the generators at the data center was 0.009 µg/m3 at sensitive receptors northwest of the project site. Concentrations at all other existing residential locations would be lower than the maximum concentration.

Based on the maximum modeled DPM concentrations that assume operation for 50 hours per year per generator, maximum increased cancer risks and non-cancer health impacts were calculated using BAAQMD recommended methods. The maximum increased cancer risk would be 6.8 in one million and the maximum hazard index would be less than 0.01 from operation of the backup generators and would be below the BAAQMD significance thresholds. Therefore, this impact would be less than significant. No mitigation is required.

Table 2-5 summarizes the results associated with operation of the generators equipped with a diesel particulate filter for 50 hours at the nearest sensitive receptor.

Table 2-5 Health Risks from Generator Operation (50 Hours Per Year at 1,400 Feet)

Scenario	Excess Cancer Risk (per million)	Chronic Health Risk[1]	$PM_{2.5}$ µg/m^3 annual average
Maximum Exposed Individual	6.8	0.0018	0.009
BAAQMD Significance Threshold	>10	>1	>0.3
Threshold Exceeded?	No	No	No

PM2.5 = particulate matter less than 2.5 microns in size; µg/m3 = micrograms per cubic meter;
1 Noncancer health impacts are determined by dividing the airborne concentration at the receptor by the appropriate Reference Exposure Level (REL) for that substance. A REL is defined as the concentration at which no adverse noncancer health effects are anticipated. Because noncancer health impacts are assessed as the ratio of airborne concentration versus the REL, the resulting hazard index is unitless.
2 There is no acute reference exposure level for diesel exhaust to calculate acute health risk. Furthermore, except for unusual circumstances of high exposure, Office of Environmental Health Hazard Assessment does not recommend acute analysis for DPM.

Additionally, project operation would generate up to 248 vehicle trips per day, which would be approximately 20 fewer vehicle trips per day than existing conditions. The project would have no impact on affected intersections and would be consistent with the County Congestion Management Program. As a result, the project would not result in individually or cumulatively significant impacts from CO emissions and would have a less than significant impact on local CO concentrations.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less than Significant. During construction activities, only short-term, temporary odors from vehicle exhaust and construction equipment engines would occur. Construction-related odors would disperse and would not cause substantial odors near the project site. The nearest sensitive receptors are located 1,400 feet northwest of the project site. In addition, construction-related odors would be temporary and would cease upon completion of construction.

Once operational, the data center itself is not expected to produce any offensive odors that would result in odor complaints, based on BAAQMD's guidelines for odor-generating uses and activities. Therefore, the impact would be less than significant. No mitigation is required.

2.4 Biological Resources

	Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special status species in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☒	☐
c) Have a substantial adverse impact on state or federally protected wetlands (including but not limited to: marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with an established resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Discussion

The project site is surrounded by industrial buildings, office development, and surface parking lots within the larger urban context of the City. Most of the project site is paved with the exception of a landscaped area along Stender Way and Central Expressway featuring a small lawn, shrubbery, and multiple coast redwoods and Canary Island pines. The project site is separated from adjacent parcels by San Tomas Aquino Creek Trail and San Tomas Aquino Creek to the east, Central Expressway to the south, Stender Way to the west, and a strip of trees and shrubbery to the north.

Construction of the data center and parking lot would require removal of 39 trees on site, none of which are protected under the City's Heritage Tree Inventory in the General Plan. For further information regarding tree removal, see the discussion under **question 2.4 "e"** below. There are no natural areas on the site; all vegetation consists of ornamental landscaping installed and maintained by the current owner of the property. The site does not contain watercourses or any bodies of water. The closest open space to the project site is Bracher Park, a green space with children's play equipment and picnic tables located approximately located 0.5 mile southwest. The park is separated from the project site by intervening urban development, major roadways, and Caltrain tracks.

Due to the relatively low amounts of vegetation on site and the urban context, the possibility of wildlife habitat is considered to be unlikely. Generally, wildlife habitats in developed urban areas such as the project site are low in species diversity. Species that may use the project site would be predominantly urban adapted birds, such as rock doves, mourning doves, mockingbirds, house sparrows, and finches. Raptors (birds of prey) and other urban birds could use trees on the project site for nesting or as a roost. Raptors and other migratory birds are protected by the Federal Migratory Bird Treaty Act (MBTA) (16 U.S.C. Section 703, et seq.).

There is no adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plans in effect that include the project site.[9]

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?

Less than Significant with Mitigation. Due to the highly developed nature of the project site and surrounding area and lack of suitable habitat for special-status species, no special-status plant or animal species are expected to occur within the project site.

Adjacent to the project site is San Tomas Aquino Creek, one of the three major waterways in the City. San Tomas Aquino Creek has been modified for flood control, bank stabilization, and sediment reduction purposes and as a result, is lined with concrete for most of the length of the project site

[9] Santa Clara Valley, 2018. *Habitat Agency Browser*. Available: http://www.hcpmaps.com/habitat/. Accessed: February 2020.

and immediate vicinity. As a result of the concrete channeling within the project area, the creek also shows little to no signs of riparian plant or animal species.

It is not anticipated that implementation of the project would indirectly or directly impact the creek. The creek is outside of the project site and would not be modified or otherwise affected by project construction or operation. Construction of the project could temporarily increase the risk of pollution into nearby waterways if stormwater runoff conveys sediment or other substances into the creek. For more information on nearby waterways and measures to control water quality during construction, please refer to **Section 2.10, Hydrology and Water Quality**.

Despite the lack of riparian habitat, it is possible that on-site trees could provide nesting habitat for migratory birds. The MBTA protects active nests, adults, eggs, and young of most species of birds. The project would require removal of 39 trees from the project site, and therefore may have a potential impact on nesting birds. If nesting birds are present within or adjacent to the project site during construction, construction activities could result in the abandonment of active nests or direct mortality to birds. However, **Mitigation Measure BIO-1** would be implemented prior to and during construction activities for the purpose of minimizing risks to migratory birds such as disturbance and other direct and indirect impacts from construction.

Mitigation Measure BIO-1: In order to reduce impacts to biological systems and communities, the following measures shall be implemented:

- Schedule tree removal activities between September 1 and January 31 (inclusive) to avoid the nesting season (including for raptors) and no construction surveys will be required.
- If tree removal will take place between February 1 and August 31, pre-construction surveys for nesting birds shall be completed by a qualified ornithologist to ensure that no nests will be disturbed.
- Surveys will be completed no more than seven days prior to the initiation of site clearing or construction activities. During this survey, the ornithologist will inspect all trees and other potential nesting habitats (e.g., shrubs) in and immediately adjacent to the construction area for nests.
- If an active nest is found sufficiently close to work areas to be disturbed by construction, the ornithologist will determine the extent of a disturbance-free buffer zone to be established around the nest (typically 250 feet for raptors and 50-100 feet for other species). This will ensure that no nests of species protected by the MBTA and California Fish and Game Code will be disturbed during project implementation.
- A report indicating the result of the survey and any designated buffer zones shall be submitted to the satisfaction of the Planning Department prior to the start of construction.

With implementation of **Mitigation Measure BIO-1**, nesting birds would be protected from disturbance and other direct and indirect impacts from construction. Therefore, project impacts would be less than significant with mitigation.

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?

Less than Significant. The project site is developed with a single-story industrial building, asphalt, and surface parking areas. The site is surrounded by industrial development with limited cover and foraging habitat for wildlife. The closest natural area to the project is San Tomas Aquino Creek, east adjacent to the project site. San Tomas Aquino Creek originates in the forested foothills of the Santa Cruz Mountains and flows approximately 17 miles in a northern direction through the center of the City, discharging into the Guadalupe Slough at the northwestern corner of the City, which flows to the lower South San Francisco Bay.

According to the City's General Plan Environmental Impact Assessment, San Tomas Aquino Creek has no identified biological uses and has been documented to contain notable amounts of trash from illegal dumping and urban runoff/storm sewers. The creek contains little to no riparian habitat and does not appear to be populated with aquatic or riparian species. Additionally, San Tomas Aquino Creek has undergone bank stabilization and sediment reduction activities to help increase flood protection throughout the portion adjacent to the project site and beyond.

The project site and San Tomas Aquino Creek are separated by minimal landscaping, a pedestrian/bike path, and two chain-link fences. Development at the project site would not reasonably be anticipated to directly or indirectly impact any sensitive communities at the Creek. For more information regarding San Tomas Aquino Creek, see **Threshold (a)** above. There are no sensitive natural communities within the project site. Therefore, the project would have a less-than-significant impact on any riparian habitat or other sensitive natural community as identified at the local, state, or federal level. No mitigation is required.

c) Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. The project site is paved and developed with industrial uses. San Tomas Aquino Creek is the closet aquatic feature, but the channel has been modified and lined with concrete from the Smith Creek confluence in the upper reaches downstream to Highway 101. According to the General Plan EIR, the creek has no identified biological purpose. There are no watercourses, seasonal wetlands, or other potential waters of the US on the project site, and the project would not result in direct removal, filling, hydrological interruption, or other indirect impacts to jurisdictional wetlands. Therefore, no impact to federally protected wetlands would occur.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, impede the use of native wildlife nursery sites?

Less than Significant with Mitigation. The project site is currently developed and is surrounded by industrial and office development, which preclude major wildlife movement. The project site is located in close proximity to heavily traveled roadways including US-101, San Tomas Expressway, and Central Expressway. Existing opportunities for wildlife movement on site and within the project vicinity are profoundly constrained by heavily traveled roadways and the lack of continuous or connected natural areas.

Migratory birds may nest in trees located within the boundaries of the project site. However, as the project would replace removed trees at a minimum 1:1 ratio on-site, with additional trees provided offsite to achieve a total replacement ratio of 2:1, using 36-inch box sizes (39 trees removed and 78 new trees planted), nesting birds would not be permanently displaced. With implementation of **Mitigation Measure BIO-1**, nesting birds would be protected from disturbance and other direct and indirect impacts from construction. Thus, with mitigation the project would result in a less-than-significant impact on the migratory movement of wildlife species.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less than Significant. The provision of landscaping and trees in the community is addressed in both the City's General Plan and the City Code. General Plan Policy 5.10.1-P4 states the City will protect all healthy cedars, redwoods, oaks, olives, bay laurel and pepper trees of any size, and all other healthy trees over 36 inches in circumference measured from 48 inches above-grade on private and public property as well as in the public right-of-way. General Plan Policy 5.3.1-P10 calls for new development to provide street trees and a minimum 2:1 on- or off-site replacement of trees removed as part of a development proposal.

Thirty-nine trees are present on the property and nine trees located on neighboring properties are located near property lines. An additional five stumps are present on the property. Of the thirty-nine trees on the project site, twenty are coast redwoods, six are Canary Island pine, six are London planes, and eleven comprise other species. All 39 would be removed as a part of the project. Per City requirements, trees with a circumference of 36 inches or greater require a permit for removal. Twenty-eight of the trees proposed for removal would require a permit prior to removal. Additionally, as required by the General Plan, trees on site would be replaced at a minimum 1:1 ratio on-site, with additional trees provided offsite to achieve a total replacement ratio of 2:1, while using a 36 inch or larger box size after construction. Therefore, implementation of the project would not conflict with policies or ordinances for biological resources including tree protection, and the impact would be less than significant. No mitigation is required.

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. No habitat conservation plan or natural community conservation plans have been adopted that include the project site. The Santa Clara Valley HCP/NCCP encompasses 519,506 acres located in Santa Clara County and was adopted in 2013 by all local participating agencies. The HCP/NCCP expanded boundaries include land just north of the US-101, roughly 0.5 miles north of the project site. The project site and immediate vicinity are not located within the boundaries of the Santa Clara Valley HCP/NCCP study area and the City is not a member jurisdiction of the Habitat Plan.[10] Therefore, the project is not subject to the obligations imposed upon member agencies and implementation of the project would not conflict with the plan, and no impact would occur.

[10] Santa Clara Valley Habitat Agency. Santa Clara Valley Habitat Plan, Chapter 3: Physical and Biological Resources. Available: http://scv-habitatagency.org/DocumentCenter/Home/View/125. Accessed: December, 2019.

2.5 Cultural Resources

	Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource, pursuant to Section 15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Discussion

A records search of the California Historical Resources Information System (CHRIS) was completed for the project site, dated January 7, 2020 and is included as **Appendix B** to this Initial Study. No previous cultural resources studies were found for the project area, nor were there previously recorded archaeological resources. No previously recorded buildings or structures within or adjacent to the project site were found. Additionally, a Native American Heritage Commission (NAHC) Sacred Lands File search was completed on December 12, 2019, which found there are no documented tribal cultural resources in the project area.

A review of the City's General Plan determined that the project site is not listed as an architecturally or historically significant property. The project site is not located within a historic district nor is it located near any architecturally significant or historic sites. The nearest architecturally significant and historic site as designated within the City's General Plan is located 1.6 miles northeast at Agnew Village.

The project site is currently developed with one single-story building, asphalt, and surface parking areas. The existing building on the project site was constructed in 1974. Since its original construction, the building has undergone renovation and modernization which is evident from the building exterior (see **Figure 5** through **Figure 7**). Because the building on-site is more than 45 years old, the structure meets the minimum age criteria for California Register of Historic Places (CRHP) and National Register of

Historic Places (NRHP) eligibility evaluation.[11] However, based on the conditions of the site and surrounding area, and the conclusion of evaluations for similar structures nearby, it is not anticipated that the project site is eligible for the CRHP or NRHP.

a) Would the project cause a substantial adverse change in the significance of an historic resource pursuant to Section 15064.5?

Less than Significant Impact. The CEQA Guidelines recognize that a significant historic resource is defined as being:

1. Associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Associated with the lives of persons important in our past;
3. Exemplary of the distinctive characteristics of a type, period, region, or method of construction, or representative of the work of an important creative individual, or possesses high artistic values; or,
4. Likely to yield information important in prehistory or history (State CEQA Guidelines Section 15064.5(a)(3)).

As described above, the CHRIS search completed for the project site concluded that there are no previously documented historic resources on or adjacent to the project site. Per the City's General Plan, the project site is not a historic resource, nor is it located near any historic resources. The nearest architecturally significant and historic site designated by the City is located 1.6 miles northeast of the project site at Agnew Village. Because there are no historic resources located near the project site, implementation of the project would not affect surrounding historic resources.

The existing building on-site is more than 45 years old, which meets the minimum age criteria for CRHP and NRHP eligibility evaluation. However, based on the results of the CHRIS search, review of the City's Historic Preservation and Resource Inventory from the General Plan, informal review of the building's architectural characteristics, as well as consideration of the existing project site's highly developed and industrial surrounding uses, the City does not identify the existing building as a CRHP-eligible historic resource. The existing building does not appear to be eligible under the City's "Criteria for Local Significance" because it is not culturally, historically, or architecturally significant. Therefore, no historic resources are present on site and no impact to historic resources would occur.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource as defined in Public Resources Code section 15064.5?

Less than Significant with Mitigation. The project site has previously been disturbed for construction of the existing building and parking lot. Construction of the project would require excavation for grading, utility trenching, and building foundations. The depth of such excavations

[11] Per the CEQA Statute and Guidelines, historical resources include properties listed in or formally determined eligible for listing in any local, state or federal register. All properties formally determined eligible for the NRHP are thereby listed in the California Register and are historical resources pursuant to CEQA.

would be an average of 5 feet[12]. Although archeological resources have not been previously reported at the site, the CHRIS records search concluded that the project site has a moderately low potential of identifying historic-period and a moderate potential of identifying Native American archaeological resources. Additionally, previous development of the site has disturbed the upper layers of soil, significantly reducing the potential for subsurface cultural resources. However, if archeological resources are uncovered during subsurface disturbance activities, **Mitigation Measure CUL-1** would be implemented to reduce potential impacts to a less-than-significant level.

> **Mitigation Measure CUL-1:** In the event archaeological resources are encountered during construction, work shall be halted within 100 feet of the discovered materials and workers shall avoid altering the materials and their context until a qualified professional archaeologist has evaluated the situation and provided appropriate recommendations.
>
> If an archaeological resource is encountered in any stage of development, a qualified archaeologist will be consulted to determine whether the resources qualify as historical resources or unique archaeological resources. In the event that the encountered resources qualify, the archaeologist will prepare a research design and archaeological data recovery plan to be implemented prior to resuming construction at the affected area. The archaeologist shall also prepare a written report of the finding, file it with the appropriate agency, and arrange for curation of recovered materials.

With implementation of **Mitigation Measure CUL-1**, potential subsurface cultural resources would be protected from disturbance and other direct and indirect impacts from construction. Therefore, project impacts would be less than significant with mitigation.

c) Would the project disturb any human remains, including those interred outside of formal cemeteries?

Less than Significant with Mitigation. As previously discussed, the project site is currently developed and no known cultural resources are located at the project site. Although unlikely, it is possible that unmarked burials may be unearthed during project construction. In the event that human remains are discovered during construction, the project applicant would comply with the California Health and Safety Code Section 7050.5 regarding human remains, and the California Public Resources Code Section 5097.98 regarding the treatment of Native American human remains. In addition, **Mitigation Measure CUL-2** would be implemented to reduce potential impacts to a less-than-significant level.

> **Mitigation Measure CUL-2:** In the event that human remains are discovered during project construction, all activity within a 50-foot radius of the site shall be halted. The Santa Clara County Coroner would be notified and would make a determination as to whether the remains are of Native American origin or whether an investigation into the cause of death is required. If

[12] Cornerstone Earth Group. 2019. *Geotechnical Investigation for 2905- 2909 Stender Way Data Center.*

the remains are determined to be Native American, the Coroner will notify the NAHC immediately. Once NAHC identifies the most likely descendants, the descendants will make recommendations regarding proper burial, which will be implemented in accordance with Section 15064.5(e) of the CEQA Guidelines.

With implementation of **Mitigation Measure CUL-2**, potential disturbance of human remains would be protected from direct and indirect impacts from construction. Therefore, project impacts would be less than significant with mitigation.

2.6 Energy

	Significant Impact	Less than Significant with Mitigation	Less-than-Significant Impact	No Impact
Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Discussion

California is one of the lowest per capita energy users in the United States, ranked 48th in the nation, due to its energy efficiency programs and mild climate. California consumed 281,180 gigawatt-hours (GWh) of electricity and 12,638 million therms of natural gas in 2018 (California Energy Commission [CEC] 2019a). Most of California's electricity is generated in-state with approximately 30 percent imported from the northwest and southwest in 2017. In addition, approximately 30 percent of California's electricity supply comes from renewable energy sources, such as wind, solar photovoltaic, geothermal, and biomass (CEC 2018a).

To reduce statewide vehicle emissions, California requires that all motorists use California Reformulated Gasoline, which is sourced almost exclusively from in-state refineries. Gasoline is the most used transportation fuel in California and is used by light-duty cars, pickup trucks, and sport utility vehicles. Diesel is the second most-used fuel in California and is used primarily by heavy duty-trucks, delivery vehicles, buses, trains, ships, boats and barges, farm equipment, and heavy-duty construction and military vehicles. Both gasoline and diesel are primarily petroleum-based, and their consumption releases greenhouse gas (GHG) emissions, including CO_2 and N_2O.

Data centers are a highly energy-intensive land use that consumes approximately two percent of total electricity usage in the U.S. due to the substantial amount of energy required to power computer servers and operate the associated cooling/chilling equipment to prevent servers from overheating. On average, data centers consume approximately 10 to 50 times more energy per square foot than typical commercial office buildings.[13] As a result, energy efficiency is often a key concern in the design and

[13] United States Department of Energy 2019

operation of data centers. Information presented below draws from the project-specific Energy Study provided by Rincon Consultants in December 2019 (refer to **Appendix C**).

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Construction

Less than Significant. Project construction would require energy resources primarily in the form of fuel consumption to operate heavy equipment, light-duty vehicles, machinery, and generators. Temporary power may also be provided for construction trailers and electric construction equipment.

Electrical power would be required to construct the project and would be supplied from existing electrical infrastructure in the area. Santa Clara County consumed approximately 16,668-GWh in 2018 which was approximately 20 percent of the combined electricity consumption by Pacific Gas & Electric and SVP (the two major electricity providers in Santa Clara County) and approximately 5.9 percent of statewide electricity consumption. Construction activities would require minimal electricity consumption and would not be expected to have any adverse impact on available electricity supplies or infrastructure. Therefore, energy consumption from project construction would be not be substantial to the overall consumption of electricity in Santa Clara County or California.

In addition, per applicable regulatory requirements such as 2019 CALGreen, the project would comply with construction waste management practices to divert a minimum of 65 percent of construction and demolition debris. These practices would result in efficient use of energy necessary to construct the project.

Project construction would require approximately 13,904 gallons of gasoline and 43,547 gallons of diesel fuel, respectively. Energy use during construction would be temporary in nature, and construction equipment used would be typical of similar-sized construction projects in the region. In addition, construction contractors would be required to comply with the provisions of California Code of Regulations Title 13 Sections 2449 and 2485, which prohibit diesel-fueled commercial motor vehicles and off-road diesel vehicles from idling for more than five minutes and would minimize unnecessary fuel consumption. Construction equipment would be subject to the U.S. EPA Construction Equipment Fuel Efficiency Standard (i.e. Tier 4 efficiency requirements, discussed in detail in Section 2.3, Air Quality), which would also minimize inefficient, wasteful, or unnecessary fuel consumption. Therefore, project construction would not result in potentially significant environmental effects due to the wasteful, inefficient, or unnecessary consumption of energy.

Operation

Energy demand from project operation would include electricity consumed by computer servers, coolers/chillers, and general building operation as well as gasoline consumed by employee vehicle trips and diesel fuel intermittently consumed by backup generators and diesel delivery tank trucks.

Day-to-day project operation would consume electricity, water, gasoline and diesel fuel. Electricity would be provided by SVP, which would serve the project through a proposed substation on-site. SVP has a renewable energy procurement portfolio of 38 percent, which would reduce the amount of nonrenewable fuels consumed to supply electricity to the project site. At peak operating capacity, the power usage effectiveness (PUE) for the project would be 1.37; however, the average annualized PUE for the project would be expected to be lower and the project has a targeted PUE of 1.35. A PUE between 1.2 and 1.5 is considered "very efficient." Therefore, under both peak and average conditions, the project would operate at a "very efficient" level. As such, project operations would not result in the wasteful, inefficient, or unnecessary consumption of electricity.

The primary source of water consumption associated with the project would be cooler/chiller systems used to keep servers and other electrical equipment at the data center cool. According to the CalEEMod output files and project-specific water consumption detailed in the Air Quality and Greenhouse Gas Study, (**Appendix A**), the project would require approximately 5.9 million gallons of water per year. This would indirectly require the use of 32-MWh per year of electricity to treatment and transport water to and from the project site. The project would incorporate high-efficiency plumbing fixtures in accordance with the latest Title 24 requirements, which would reduce the potential for inefficient or wasteful consumption of energy related to water and wastewater. Furthermore, cooling equipment would include air-cooled chillers that only require a one-time fill of water for operation, which would further reduce wasteful and unnecessary water consumption as compared to traditional evaporative cooling systems. Compared to existing conditions, the project would result in an overall decrease in electricity consumption related to water; the existing building is estimated to generate 67.57 MWh of electrical consumption to convey water annually, while the project would consume only 31.92 MWh.

The project would result in the consumption of gasoline and diesel fuels by employee vehicle trips and diesel delivery trucks. The project would employ approximately 18 full-time employees per day (8 during the day and 5 per shift during the evening and overnight shifts) who would travel to and from the project site on a daily basis. In addition, project operation would also require periodic trips by service technicians and suppliers. Based on anticipated vehicle miles traveled and the anticipated fleet mix in the CalEEMod output, operational vehicle trips would consume approximately 1,608 gallons of gasoline and approximately 355 gallons of diesel fuel annually.

Because use of the backup generators would be limited to routine maintenance and extended power outages, deliveries to re-supply diesel fuel stored on-site would be infrequent and only on an as-needed basis. According to CalEEMod calculations, the existing light industrial building on the project site generates substantially greater vehicle miles traveled and indirectly requires the consumption of approximately 36,527 gallons of gasoline and 8,072 gallons of diesel fuel annually.[14] Consequently, the project would be expected to result in a net decrease in operational fuel consumption associated with

[14] Air Quality and Greenhouse Gas Study, Rincon 2019.

vehicle trips. Therefore, fuel consumption by employee and delivery vehicle trips would not be wasteful, inefficient, or unnecessary.

The project would include 16 backup generators, at least two of which would be redundant. In the event of a power outage, the project would rely on these backup generators to provide electricity. Testing and maintenance of the generators would occur no more than 50 hours annually, per BAAQMD's standard permit conditions which would be included in the Authority to Construct. Assuming that approximately 241 gallons of diesel fuel are required per hour to test generators at full load, backup generator testing would require approximately 12,050 gallons of diesel fuel per generator for a total of approximately 192,800 gallons annually. Based on information provided by the applicant, generators would not be expected to operate at full load for all maintenance and testing activities. Maintenance and emergency use of the backup generators would not result in the wasteful, inefficient, or unnecessary consumption of energy because routine maintenance would be conducted periodically based on the minimum requirements to ensure reliability and emergency operation would only occur during infrequent extended power outage events.

With the support of project design features that would maximize energy efficiency and conservation, overall project operation would not result in the wasteful, inefficient, or unnecessary consumption of energy resources. Therefore, the projects impact on energy consumption would be less than significant.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less than Significant. Senate Bill 100 mandates 100 percent clean electricity for California by 2045. Because the project would be powered by the existing electricity grid, the project would eventually be powered by renewable energy and would not conflict with this statewide plan. Furthermore, the project would comply with all applicable Title 24 requirements pertaining to energy efficiency and renewable energy.

As shown below in **Table 2-6**, the City's General Plan and Climate Action Plan include several goals and policies related to renewable energy and energy efficiency. The project is consistent with these goals and policies. Therefore, the project would be consistent with renewable energy and energy efficiency plans. This impact would be less than significant.

Table 2-6 Project Consistency with General Plan Sustainability Policies

General Plan	Project Consistency
Renewable Resource Policies	
5.10.3-P1: Promote the use of renewable energy resources, conservation and recycling programs.	**Consistent.** The project would source its electricity from SVP, which has a renewable energy procurement portfolio of 38 percent renewable resources. SVP is be subject to the provisions of SB 100, which requires utility providers to increase their renewable energy procurement portfolios to 60 percent by 2030 and 100 percent by 2045. Therefore, the project would be consistent with Policy 5.10.3-P1.
Energy Policies	
Policy 5.10.3-P4: Encourage new development to incorporate sustainable building design, site planning and construction, including encouraging solar opportunities.	**Consistent**. The proposed building would be required to meet 2019 Title 24 standards, thereby increasing the energy conservation achieved by building design. Under the 2019 Building Energy Efficiency Standards, nonresidential buildings will be 30 percent more energy efficient compared to those constructed under the 2016 Standards. The project would also be required to comply with the requirements of 2019 CALGreen, which mandate a minimum diversion rate of 65 percent for construction and demolition waste. The project would be anticipated to result in a net decrease in water and transportation-related gasoline/diesel fuel consumption relative to existing conditions. Therefore, the project would be consistent with Policy 5.10.3-P4, Policy 5.10.3-P5, and Policy 5.10.3-P6.
Policy 5.10.3-P5: Reduce energy consumption through sustainable construction practices, materials and recycling.	
Policy 5.10.3-P6: Promote sustainable buildings and land planning for all new development, including programs that reduce energy and water consumption in new development.	
Santa Clara Climate Action Plan	
Policy 2.3. Encourage new data centers with an average rack power rating of 15 kW or more to identify and implement cost-effective and energy-efficient practices.	**Consistent**. Based on data provided by the project applicant and similar data center designs, the project would have an average rack power rating of 5 to 6.5 kW. As discussed under (a), the project would have a targeted power usage effectiveness (PUE) of 1.35, which falls into the “very efficient” range. Therefore, the project would be consistent with Policy 2.3.

Source: Rincon 2019

2.7 Geology and Soils

	Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects including the risk of loss, injury or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	☐	☐	☒	☐
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☒	☐	☐
iv. Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Section 1803.5.3 of the California Building Code (2019), creating substantial direct or indirect risks to life or property?	☐	☒	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	☐	☒	☐	☐

Discussion

The project site is in the Santa Clara Valley, a relatively flat alluvial basin, bounded by the Santa Cruz Mountains to the southwest and west, the Diablo Mountain Range to the east, and the San Francisco Bay to the north. A project-specific geotechnical investigation was completed for the project site in March 2019, and the report is included as **Appendix D** to this Initial Study.

No known active or potentially active faults cross the project site, and the project site is not within an Earthquake Fault Zone as delineated by the Alquist-Priolo Earthquake Fault Zoning Act. However, the project site is located within a state-designated Liquefaction Hazard Zone as well as a Santa Clara County Liquefaction Hazard Zone. [15] While the project is not within an Earthquake Fault Zone, the San Francisco Bay Area region has several known seismically active faults, making the area subject to strong ground shaking in the event of an earthquake.

a) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zone Map issued by the state geologist for the area or based on other substantial evidence of a known fault?

Less than Significant. The closest faults to the project site are the San Jose fault (located approximately 1.6 miles away), Silver Creek fault (2.8 miles away), Stanford fault (2.9 miles away), and the Hayward fault (8.25 miles away). The site is not within a currently established State of California Earthquake Fault Zone or Santa Clara County Geologic Hazard Zone for surface fault rupture hazards. No active or potentially-active faults are known to pass directly beneath the site. Therefore, the potential for surface rupture due to faulting occurring beneath the site during the design life of project is low. Due to the distances of faults from the project site, and the absence of known faults within or near the project site, implementation of the project would not expose people or buildings to known risks of fault rupture. Given this, the impact would be less than significant with implementation of the project. No mitigation is required.

ii. Strong seismic ground shaking?

Less than Significant. Earthquakes along several nearby active faults in the region could cause moderate to strong ground shaking at the project site. The intensity of the earthquake ground motions and the damage done by shaking would depend on the characteristics of the generating fault, distance to the fault and rupture zone, earthquake magnitude, earthquake duration, and site-specific geologic conditions. Given that the entire San Francisco Bay Area region is subject to strong seismic ground shaking during a large earthquake event, the project would not expose people or structures to any greater risks involving seismic ground shaking than would other development

[15] California Geological Survey. 2002. Earthquake Zones of Required Investigation, San Jose West Quadrangle. Available: http://gmw.conservation.ca.gov/SHP/EZRIM/Maps/SAN_JOSE_WEST_EZRIM.pdf. Accessed: December 2019.

located in the region. While the potential for seismic ground shaking cannot be eliminated, the building would be constructed to comply with the 2019 California Building Code (CBC) and other applicable standards and practices for earthquake resistant construction. Compliance with these standards and practices reduce the risks associated with strong seismic ground shaking at the project site. Therefore, impacts related to seismic ground shaking would be less than significant. No mitigation is required.

iii. Seismic-related ground failure, including liquefaction?

Less than Significant with Mitigation. Soil liquefaction is a condition where saturated granular soils near the ground surface undergo a significant loss of strength during seismic events. Loose, water-saturated soils are transformed from a solid to a liquid state during ground shaking. Liquefaction can result in significant deformations and ground rupture. Soils most susceptible to liquefaction are loose, uniformly graded, saturated, fine-grained sands that lie close to the ground surface.

The project site is located within a State-designated Liquefaction Hazard Zone as well as a Santa Clara County Liquefaction Hazard Zone.[16] The likely consequence of potential liquefaction at the site would be settlement. As previously mentioned, the project would be constructed in compliance with the 2019 CBC, including all applicable seismic standards for structures. Compliance with the 2019 CBC reduces potential risks associated with settlement from seismically-induced liquefaction. Additionally, **Mitigation Measure GEO-1** would be required to further reduce the risk of settlement from liquefaction.

> **Mitigation Measure GEO-1:** To reduce risks associated with liquefaction, the project will be built using standard engineering and seismic safety design techniques. Building design and construction at the site shall be completed in conformance with the recommendations of the project-specific geotechnical investigation (**Appendix D**). Such recommendations include, but are not limited to, the use of shallow foundations such as spread footings, that are designed to maintain structural integrity in the event of settlement from liquefaction. The buildings shall meet the requirements of applicable Building and Fire Codes, including the most current California Building Code, as adopted or updated by the City. The project shall be designed to withstand soil hazards identified on the site and the project shall be designed to reduce the risk to life or property on site and off site to the extent feasible and in compliance with the Building Code.
>
> With implementation of **Mitigation Measure GEO-1**, potential risks associated with settlement from seismically-induced liquefaction would be reduced to a less than significant level.

[16] City of Santa Clara. 2008. Santa Clara General Plan - Seismic, Geologic and Soil Hazards. Available: https://www.santaclaraca.gov/our-city/departments-a-f/community-development/planning-division/general-plan. Accessed: December 2019.

iv. Landslides?

No Impact. The project site and surrounding area is relatively flat and do not have any steep slopes or hillsides that would be susceptible to landslides. The project would not, therefore, be exposed to landslide-related hazards. No impact would occur.

b) Would the project result in substantial soil erosion or the loss of topsoil?

Less than Significant. Project construction would involve ground disturbing activities that would temporarily expose soils and increase the potential for soil erosion from wind or stormwater runoff. The project would be subject to the requirements of Provision C.3 of the City's National Pollutant Discharge Elimination System (NPDES) permit and would be required to comply with the City's Best Management Practices for erosion and sedimentation control during the construction period, as outlined in the NPDES permit. Additionally, the project would be subject to a post-construction NPDES Permit and Provision C.3 requirements, ensuring that the project would not include areas of exposed topsoil. This is described in detail in **Section 2.9, Hydrology and Water Quality**. As a result, impacts related to erosion and loss of topsoil would be less than significant and no mitigation is required. No mitigation is required.

c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less than Significant. Lateral spreading is a type of ground failure related to liquefaction. It consists of the horizontal displacement of flat-lying alluvial material toward an open face, such as the steep bank of a stream channel. San Tomas Aquino Creek is to the east of the project site, but it is not steep, and is lined with cement retaining walls. Therefore, this creek would not be subject to lateral spreading.

The project would be designed and constructed in accordance with standard engineering safety techniques and in conformance with the requirements of applicable, current Building and Fire Codes, including the 2019 CBC, as adopted by the City. As described above, the project site is not at risk of lateral spreading, landslides, or significant liquefaction. Therefore, impacts related to soil stability would be less than significant and no mitigation is required.

d) Would the project be located on expansive soil, as defined in Section 1803.5.3 of the California Building Code (2019), creating substantial direct or indirect risks to life and property?

Less than Significant with Mitigation. Moderate to highly expansive soils are present on site. Expansive soils can undergo significant volume changes when moisture content in the soil fluctuates. This continuous change in volume can cause foundations built on site to move unevenly and crack. To avoid risks associated with expansive soils, foundation design would be reviewed and approved by City engineers for compliance with the 2019 CBC general foundation design standards. **Mitigation Measure GEO-2** would be implemented to reduce potential impacts from expansive soils to a less-than-significant level.

Mitigation Measure GEO-2: Expansive soils shall be addressed through treatment or removal, in order to reduce the potential for structural damage. Slabs-on-grade should have sufficient reinforcement and be supported on a layer of non-expansive fill. Treatment of expansive soil may include lime or other additives to reduce expansion potential. Footings should extend below the zone of seasonal moisture content variation. Expansive soils may also be replaced with a non-expansive fill material to a depth where the seasonal moisture content variation becomes relatively insignificant. The appropriate depth shall be determined by a qualified structural engineer. In addition, moisture changes in the surficial soils should be limited by directing drainage away from buildings, as well as limiting the water used for landscaping.

With implementation of **Mitigation Measure GEO-2**, potential risks associated with expansive soils would be reduced to be less than significant.

e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. The City sewer utility system would treat wastewater generated by the project. The project site is currently developed and connected to existing wastewater mains. The project does not include septic tanks, and no septic tanks are proposed. Therefore, no impact would occur.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?

Less than Significant with Mitigation. The project site is currently developed with an existing single-story building and parking lot. Ground disturbance from project construction activities would be primarily limited to previously disturbed areas. Additionally, the Geotechnical Investigation prepared for the project (see **Appendix D**) found that the project site is underlain with 8 feet of imported fill material. Project construction would require excavation up to 5 feet deep. As such, it is not anticipated that project construction would encounter paleontological resources. However, in the unlikely event that paleontological resources are encountered during construction, they may be inadvertently damaged or destroyed. This is a potentially significant impact. **Mitigation Measure GEO-3** would require the implementation of discovery procedures if paleontological resources are encountered and require a qualified paleontologist to recommend measures specific to the discovered resource. Implementation of **Mitigation Measure GEO-3** would reduce potential impacts to paleontological resources.

Mitigation Measure GEO-3: Discovery of a paleontological specimen during any phase of the project shall result in a work stoppage in the vicinity of the find until it can be evaluated by a professional paleontologist. Should loss or damage be detected, additional protective measures or further action (e.g., resource removal), as determined by a professional paleontologist, shall be implemented to mitigate the impact.

With implementation of **Mitigation Measure GEO-3**, potential impacts to paleontological resources would be reduced to be less than significant.

2.8 Greenhouse Gas Emissions

	Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?	☐	☐	☒	☐

Discussion

Unlike emissions of criteria and toxic air pollutants, GHGs have a broader, global impact. GHGs such as carbon dioxide (CO_2), methane, water vapor and nitrous oxide (NO_x) occur naturally in the earth's atmosphere and are responsible for maintaining the earth's surface temperature. Compounds such as chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride are byproducts of human economic activities like fossil fuel combustion and act as GHGs. While natural levels of GHGs keep the earth comfortable, these human-generated compounds pose various adverse effects and result in global warming. The continued release of GHGs at or above current rates would continue to increase average global surface temperatures and would alter the planet's climate, creating significant long-term local, regional, and global impacts.

BAAQMD has adopted thresholds of significance to assist in the review of operational GHGs under CEQA. BAAQMD has not adopted a threshold for construction-period GHG emissions, as GHG emission impacts reflect the long-term and cumulative effect of GHG on a global scale, while construction-period emissions are intermittent and temporary. These thresholds are designed to establish the level at which GHG emissions would cause significant environmental impacts. The significance thresholds identified by BAAQMD are:

- Consistency with a qualified GHG Reduction Strategy (such as a climate action plan) OR
- Emissions below 1,100 MT of CO_2e per year per project OR
- Emissions below 4.6 MT CO_2e per service population per year.[17]

[17] The 4.6 MT CO_2e/Service Population/year threshold is intended for land use development projects including residential, commercial, industrial, and public land uses and facilities. This threshold does not apply to stationary source projects (BAAQMD 2017).

However, the current thresholds set by BAAQMD, and the goals of the City's Climate Action Plan, were established to achieve the state's 2020 GHG reduction target. Because the project is not anticipated to be operational until after 2020, an analysis of consistency with the state's post-2020 GHG reduction goals is appropriate. While the achievement of 2020 GHG reduction goals could – in part – reasonably be attained through local reductions in GHGs, such as those outlined in CAPs, the attainment of 2030 goals and beyond increasingly requires sector-wide and statewide policy changes to address GHG emissions. Many of these actions are outside of the jurisdiction and/or capacity of individual municipalities.

For example, in the energy sector, renewable energy production sources (such as wind and solar energy) must comprise 50 percent of all retail sales statewide by 2030. Additionally, the post-2020 Cap and Trade program has been designed to capture 80 percent of statewide GHG emissions. A more detailed list of actions required to achieve 2030 goals is provided below. Therefore, in this analysis, the project is compared to the City's CAP for the project's opening year (2022), and additionally is evaluated for overall GHG reductions consistent with 2030 statewide goals.

Applicable Plans, Policies and Regulations

A number of plans, policies and regulations have been adopted by agencies at the national, state, and local levels to control GHG emissions. Several key plans and policies are described below. In addition, relevant plans and policies are discussed in detail in **Appendix A**.

California Assembly Bill 32

With the passage of Assembly Bill 32 (AB 32, Global Warming Solutions Act of 2006), the State of California made a commitment to reduce GHG emissions to 1990 levels by 2020, which represents about a 30 percent decrease over 2006 levels. In December 2008, CARB approved the Climate Change Scoping Plan, which provided a comprehensive set of actions designed to reduce California's dependence on oil, diversify energy sources, save energy, and enhance public health, among other goals. Per AB 32, the Scoping Plan must be updated every five years to evaluate the mix of AB 32 policies to ensure that California is on track to achieve the 2020 GHG reduction goal.

Executive Order B-30-15 and Senate Bill 350

In April 2015, the Governor issued Executive Order B-30-15, which established a GHG reduction target of 40 percent below 1990 levels by 2030. Senate Bill 350 (SB 350) advanced these goals through two measures. First, the law increases the renewable power goal from 33 percent renewables by 2020 to 50 percent by 2030. Second, the law requires the California Energy Commission (CEC) to establish annual targets to double energy efficiency in buildings by 2030. In October 2017, the CEC issued their final report on a strategy to double energy efficiency by 2030. The report sets targets for utility providers and "nonutility" program savings. Nonutility program savings focus on energy efficiency savings from programs such as Building Efficiency Standards and Appliance Efficiency regulation. SB 350 requires large publicly owned utilities and all load-serving entities under the jurisdiction of the California Public Utilities Commission (CPUC) to file integrated resource plans (IRPs) with the CEC and CPUC, respectively. IRPs

must detail how each utility will meet their customers resource needs, reduce greenhouse gas emissions, and ramp up the deployment of clean energy resources in order to meet the 2030 target, pursuant to SB 350. The law also requires the CPUC to direct electric utilities to establish annual efficiency targets and implement demand-reduction measures to achieve this goal.

Senate Bill 100

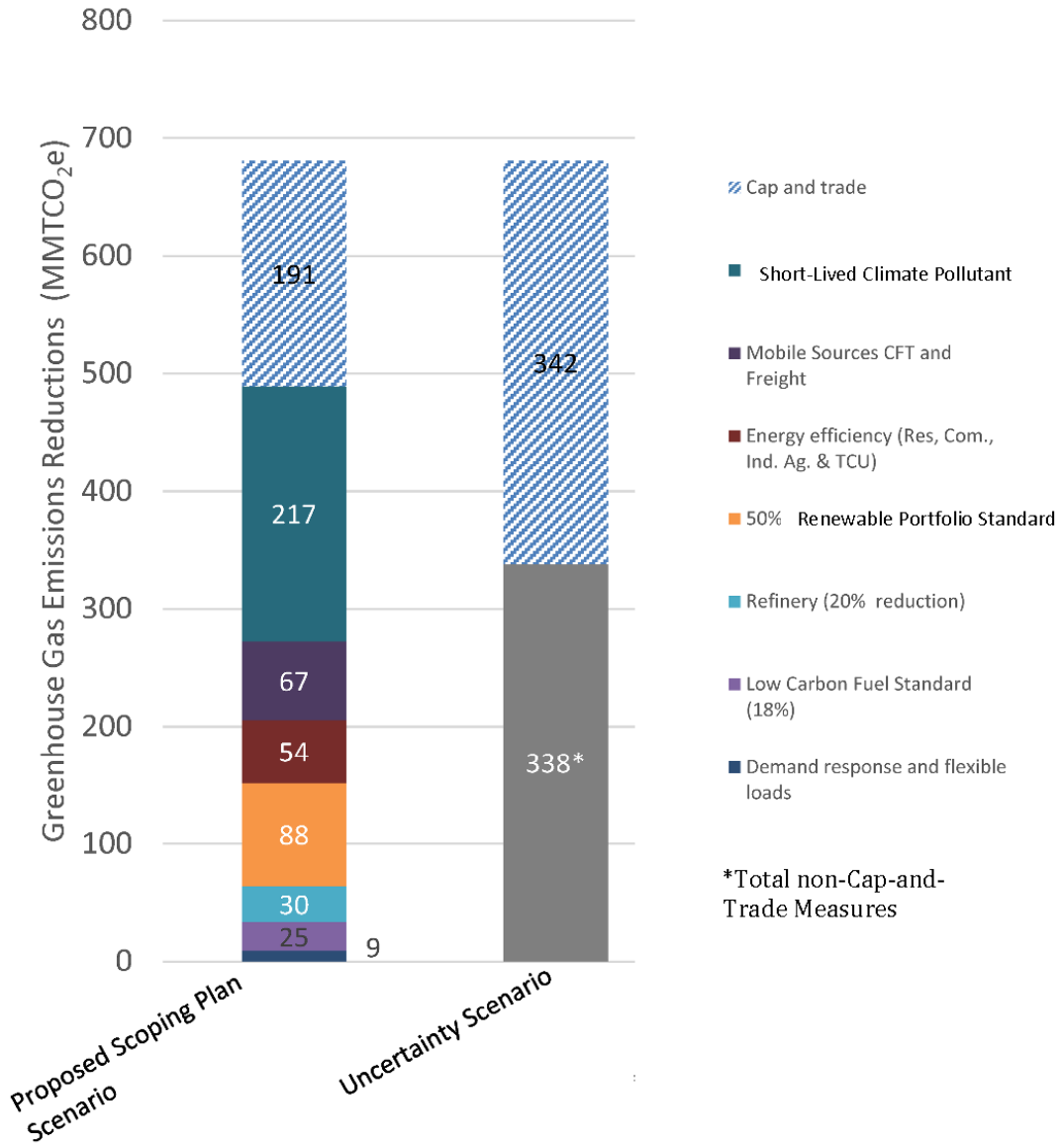
Adopted on September 10, 2018, Senate Bill 100 (SB 100) supports the reduction of GHG emissions from the electricity sector by accelerating the state's Renewables Portfolio Standard Program, which was last updated by SB 350 in 2015. SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

Senate Bill 32

In September 2016, the Governor signed Senate Bill 32 (SB 32) into legislation, which builds on AB 32 and requires the state to cut GHG emissions to 40 percent below 1990 levels by 2030. With SB 32, the Legislature also passed Assembly Bill 197, which provides additional direction for updating the Scoping Plan to meet the 2030 GHG reduction target codified in SB 32. CARB published California's 2017 Climate Change Scoping Plan Update in November 2017 (2017 Scoping Plan). The 2017 Scoping Plan establishes a strategy that will reduce GHG emissions in California to meet the 2030 target. Key features of this plan are:

- Cap and Trade program places a firm limit on 80 percent of the State's emissions;
- Achieving a 50-percent Renewable Portfolio Standard by 2030 (currently at about 29 percent statewide);
- Increase energy efficiency in existing buildings;
- Develop fuels with an 18-percent reduction in carbon intensity;
- Develop more high-density, transit-oriented housing;
- Develop walkable and bikeable communities;
- Greatly increase the number of electric vehicles on the road and reduce oil demand in half;
- Increase zero-emissions transit so that 100 percent of new buses are zero emissions;
- Reduce freight-related emissions by transitioning to zero emissions where feasible and near-zero emissions with renewable fuels everywhere else; and
- Reduce "super pollutants" by reducing methane and hydrofluorocarbons by 40 percent.

As presented in the 2017 Scoping Plan, various changes and measures are needed to achieve the 2030 target. As shown in **Figure 8,** the Scoping Plan has established a proposed reduction scenario that requires specific reductions through programs and changes to fossil fuel consumption. Based on the Scoping Plan scenario, a significant portion of GHG emission reductions will result from statewide programs and existing and proposed policies, including Cap and Trade, a doubling of energy efficiency as required by SB 350, Renewable Portfolio Standard requirements, and Low Carbon Fuel standards. Other significant reductions will be achieved through an increase in zero-emission vehicles, trucks and buses



2030 Greenhouse Gas Reduction Scenario Figure **8**

Source: California Air Resources Board, 2017

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(referred to in the Scoping Plan as Mobile Sources); improvements to freight efficiency, reductions in short-lived climate pollutants including black carbon, methane, and hydrofluorocarbons; improvements in demand response and flexible loads by utility providers; and reductions in emissions from refineries.

City of Santa Clara General Plan

The City's 2010-2035 General Plan includes policies that address the reduction of GHG emissions during the planning horizon of the General Plan. Goals and policies that address sustainability (see General Plan Appendix 8.13: Sustainability Goals and Policies Matrix) are aimed at reducing the City's contribution to GHG emissions. As described below, the development of a comprehensive GHG emissions reduction strategy for the City is also included in the General Plan.[18]

Climate Action Plan and Silicon Valley Power

The City adopted its comprehensive GHG emissions reduction strategy (CAP) in December 2013. The goal of the CAP is to achieve the City's fair share of statewide emissions reductions for the 2020 timeframe consistent with AB 32. The CAP specifies strategies and measures to be taken for a number of focus areas (coal-free and large renewables, energy efficiency, water conservation, transportation and land use, waste reduction, etc.).

A key CAP focus area that is being implemented is Coal-Free and Large Renewables. The City operates SVP, a publicly owned utility that provides electricity for the community of the City, including the project site. Data centers constitute a large portion of the electricity used in the City; about 28 percent on average. Since nearly half (48 percent) of the City's GHG emissions result from electricity use, removing fossil fuel sources of electricity generation is critical for achieving the City's GHG reduction goals.[19] This measure is being undertaken by SVP.

In December 2018, SVP published an updated Strategic Plan that outlines goals and actions for achieving 2030 GHG emission reductions consistent with the legislation described above. As described in the strategic plan, SVP currently provides 44 percent of its electricity from non-carbon renewable resources. All electricity from SVP has been coal-free since January 2018. On November 27, 2018 the Santa Clara City Council adopted SVP's IRP, which lays out needed steps to meet the 50 percent Renewable Portfolio Standard set by SB 52. SVP plans to exceed the 50 percent target.

The CAP also addresses data centers directly and sets benchmarks for PUE. The CAP requires data centers with a rack power rating of 15-kW or higher to achieve a PUE rating of 1.2 or lower or to undertake a feasibility study to identify techniques that could achieve a PUE of 1.2. This approach ensures the largest projects are captured and required to analyze their power efficiency, a similar

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[18] City of Santa Clara. 2010. *2010-2035 General Plan*. Available: http://santaclaraca.gov/government/departments/community-development/planning-division/general-plan-and-specific-plans. Accessed: August 2018.

[19] City of Santa Clara. 2013. *Climate Action Plan.* http://santaclaraca.gov/home/showdocument?id=10170. Accessed July 2017.

strategy to the state's Cap and Trade program. This approach also supports the 2017 Scoping Plan target of increasing energy savings from energy efficiency.

The City requires that CEQA clearance for all discretionary development proposals address the consistency of individual projects with reduction measures in City's CAP and goals and policies in the City's General Plan designed to reduce GHG emissions. Compliance with appropriate measures in the CAP would ensure an individual project's consistency with an adopted GHG reduction plan for 2020.

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than Significant. With implementation of the project, GHG emissions would result from construction activities and data center operation. Construction emission would result from equipment exhaust. Operational emissions would be both direct and indirect. Direct operational emissions would result from emissions from project equipment such as the cooling towers and generators. Indirect emissions would result from electricity used to run the servers, electricity used for water and wastewater conveyance, and emissions from vehicles traveling to and from the site.

Construction

BAAQMD has not established a threshold for construction-period GHG emissions. Project-related construction emissions are confined to a relatively short period in relation to the overall life of the project. Therefore, construction-related GHG emissions were amortized over a 30-year period to determine the annual construction-related GHG emissions over the life of the project. Total construction GHG emissions are estimated to be 554.3 metric tons of CO_2e. Amortized over the life of the project, which is assumed to be 30 years, this equates to 18.5 metric tons per year. Based on BAAQMD's guidelines and the project-specific information provided herein, GHG emissions during construction would be minor and temporary. Thus, GHG emissions from project construction are considered less than significant.

Operation

The project's primary function is to house computer servers, which require electricity 24 hours a day to operate. Therefore, operation of the data center would require a substantial amount of electrical power. The data center is anticipated to require an average of 48-MW to operate, which would equate to 420,480-MWh per year. This would constitute the project's largest GHG contribution through the indirect generation of GHG emissions. Overall, the daily power usage would vary depending on how many servers are up and running and how intensely the data center's clients are running their servers. In addition to indirect GHG emissions, the project would directly result in GHG emissions through operation of equipment, specifically backup generators. Predicted direct and indirect GHG emissions resulting from project operation are shown in **Table 2-7**.

Indirect Operational Emissions

Electricity production can generate GHGs if fossil fuels (such as coal and natural gas) are the source fuel. In contrast, energy provided by renewable energy sources (such as wind power, solar, or hydroelectric) would have a reduced or nonexistent rate of GHG emissions.

Electricity for the project would be provided by SVP. SVP currently acquires 38 percent of its energy portfolio from eligible renewable energy sources. Because the operational life of the project would extend past the 2030 time horizon, the GHG emissions associated with electricity usage would decrease over time as SVP procures more of its portfolio from renewable sources. Therefore, this analysis utilizes SVP's anticipated 2030 energy source portfolio from the 2018 Integrated Resource Plan (SVP 2018) to calculate the utility's future energy intensity factor and the project's electricity-related operational GHG emissions. A 2030 energy intensity factor of 0.0821 MT (or 164.4 pounds) of CO_2e was calculated by dividing the total GHG emissions from identified 2030 supply sources by the 2030 projected total energy from supply resources (SVP 2018).

Table 2-7 Combined Annual Project GHG Emissions

Source	Annual Project Emissions (MT of CO_2e)
Baseline Emissions Existing Land Use	544.3
Project Emissions Construction (Amortized Annual)	18.5
Operational - Area - Solid Waste - Water	 <0.1 38.5 10.4
Electricity Usage - SVP Provided Electricity	34,521.4
Mobile - CO_2 and CH_4 - N_2O	 63.5 2.9
Total Project Emissions	**34,655.2**
Net Project Emissions *Project Minus Baseline*	34,110.9

Source: Rincon, 2019

As shown in **Table 2-7**, total net emissions associated with the project are estimated to be approximately 34,111 MT of CO_2e per year. This quantitative estimate is shown for informational purposes and is not used to determine the significance of the project's GHG emissions.

The vast majority (99.86 percent) of the project's GHG emissions would be generated by the building's electricity demand. This analysis assesses the consistency of the project with local and

statewide GHG reduction targets and energy efficiency measures. Currently, SVP's power mix is comprised of 38 percent renewable energy sources. SVP's energy intensity factor is therefore considerably lower than the California statewide average. The preferred plan outlined in SVP's 2018 Integrated Resource Plan meets and exceeds the 2030 renewable energy target set forth by SB 100.

By utilizing power generated with SVP's SB 32-consistent portfolio of renewable energy, the project's indirect GHG emissions would be consistent with SB 32 and the 2017 Scoping Plan scenario to achieve SB 32's goal of 40 percent below 1990 levels by 2030.[20] **Table 2-8** summarizes SVP's 2019 and 2030 energy intensity factors as compared to the California statewide electrical grid average, and demonstrates the reduction effect of SVP's renewable portfolio on the project's GHG emissions.

Table 2-8 Energy Intensity Factor and Project-Generated GHG Emissions

Utility	Energy Intensity Factor (MT/MWh)	Project's Annual CO_2e Emissions (MT/year) from Electricity Demand[1]
California-wide average (eGRID 2016)	0.264	110,985.7
Silicon Valley Power (2019 Factor)	0.155	65,048.3
Silicon Valley Power (2030 Factor)	0.082	34,521.4

Rincon, 2019
MT = metric tons; MWh = megawatt hours; CO2e = carbon dioxide equivalent
1 Project's annual emissions calculated using the project's annual electricity demand of 420,480 MWh and the respective energy intensity factor.

In addition, the project would indirectly result in a small amount of mobile emissions through vehicles traveling to and from the project site. As described in the 2017 Scoping Plan, mobile source emissions will continue to decrease over time as a result of existing and planned statewide programs, including the increase of electric/zero-emission vehicles and the Low Carbon Fuel Standard.

In addition to renewable power, the 2017 Scoping Plan scenario for meeting 2030 goals includes energy efficiency. The City's CAP addresses energy efficiency for data centers via a two-step process. First, the average rack power rating for a data center is determined; if it is below 15-kW, a feasibility study for PUE is not required. The project's average rack power rating would only be 5 to 6.5-kW, therefore, a feasibility study for PUE is not required. However, as described in SVP's strategic plan, SVP works

[20] As a whole, the state of California is on track to reach 1990 levels of GHG emissions in 2020.

closely with industrial customers to develop project-specific energy efficiency rebate plans. This is carried out under SVP's obligation to implement SB 350.

Therefore, based on all of the above, the project's contribution to indirect operational GHG emissions would be less than significant.

Direct Operational GHG Emissions

During project operation, backup generators would be periodically tested for maintenance purposes. Per BAAQMD's 2017 CEQA Guidelines, new stationary sources should be evaluated separately from project operation emissions associated with land use. Therefore, GHG emissions from the 16 backup generators are evaluated against a separate, stand-alone stationary source significance threshold established by BAAQMD. Stationary sources are not considered "cumulatively considerable" from a land use perspective if the stationary sources comply with the 10,000 MT CO_2e per year threshold. Therefore, the significance threshold of 10,000 MT CO_2e per year is used to determine the significance of the GHG emissions generated by the backup generators.

As shown in **Table 2-9**, total emissions generated from the operation of all 16 generators at the project site for 50 hours per year would result in approximately 8,541 MT of CO_2e. Therefore, the operation of all 16 generators for 50 hours per year would comply with the BAAQMD's stationary source threshold of 10,000 MT CO_2e and would not be cumulatively considerable.

Table 2-9 Stationary Source Annual Emissions of GHGs

Emission Source	Annual Emissions (CO_2e) in MTs
Single Generator	533.8
Total[1]	**8,541.1**
BAAQMD Stationary Source Threshold	10,000
Exceeds Threshold?	No

Source: Rincon, 2019
See Appendix C of the attached Air Quality and Greenhouse Gas Study for calculation of GHGs from the stationary sources.
[1.] Total annual emissions from diesel fuel combustion is based the operation of all 16 generators for 50 hours per year.

The burning of diesel fuel results in emissions of black carbon, a known GHG addressed in the 2017 Scoping Plan. As discussed in the 2017 Scoping Plan, under Senate Bill 1383, man-made black carbon emissions must be reduced by 50 percent by 2030. The majority of black carbon emissions in the state result from forestry and land management activities and wildfires. As described in **Section 1, Project Description** above, the project would include EPA Tier II engines for all backup generators, and generators would be outfitted with Level 3 verified diesel particulate filters (DPFs). Generators would be fueled using ultra-low sulfur diesel fuel with a maximum sulfur content of 15 parts per million (ppm). These measures will greatly minimize black carbon emissions from the backup generators, with a

minimum control efficiency of 85 percent removal of particulate matter. While the precise percentage reduction in black carbon needed from diesel engines to meet SB 32 goals is not called out in the 2017 Scoping Plan, given that the majority of this category of emissions comes from forestry activities and other activities described above, a reduction of 85 percent of particulate emissions for generators is reasonably believed to meet or exceed the reduction goal. Based on the discussion above, the project's GHG emissions would be less than significant.

b) Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing greenhouse gas emissions?

Less than Significant. The project would not conflict with an applicable local plan, policy or regulation adopted for the purpose of reducing the emission of GHGs. Key planning and policy documents in the City include the General Plan and CAP. The CAP was adopted in December of 2013 and included in the General Plan as an appendix item.[21]

Climate Action Plan Consistency

The City adopted its current climate action plan (CAP) in December 2013. This plan outlines strategies to reduce GHG emissions for a horizon year of 2020. However, the plan does not address meeting the requirements of SB32 (2030 emissions target). 2030 emissions targets are discussed under **question "a"** above.

The City's CAP recommends a citywide GHG reduction target of 15 percent below the 2008 baseline level by 2020. Data centers indirectly result in GHG emissions through electricity use. Increasing the energy efficiency of data centers is the primary method to reduce GHG emissions. The CAP identifies measures to close the local emissions reduction gap and achieve an emissions reduction target consistent with AB 32. This approach is divided into several focus areas, four of which are relevant for the project:

Focus Area 1: Coal-Free and Large Renewables
Goal: Eliminate coal from SVP's portfolio and increase use of natural gas and renewable energy.

As described above, reducing the rate of emissions associated with electricity production is a critical measure in the CAP. SVP's switching to renewable energy sources as an alternative to fossil fuels has reduced SVP's emissions substantially, and continued migration to renewable energy will further reduce GHG emissions from electricity generation in the future. Because data centers consume high rates of electricity, reducing emissions from electricity production indirectly reduces the GHG emissions from these types of projects. The project's electricity would be provided by SVP, making the project's operation consistent with this CAP goal.

[21] The current CAP has a horizon year of 2020. Because the project is not anticipated to be finished until after 2020, consistency with policies established in the CAP would not be sufficient to make a less-than-significant determination.

Focus Area 2: Energy Efficiency Programs
Goal: Maximize the efficient use of energy throughout the community

The CAP identifies energy efficiency as a means to reducing GHG emissions from data center projects, such as the project. According to the CAP, 28 percent of total electricity consumed in the City is used by data centers. To respond to the effects of this electricity use, the City requires new data centers with an average rack power rating of 15-kW or more to complete a feasibility study identifying techniques to achieve a PUE rating of 1.2 or lower. The project would have an average rack power rating of 5 to 6.5 kW, and a "very efficient" PUE target of 1.35, with a PUE of 1.37 at peak operating capacity. Therefore, the project would be considered to be energy efficient and would be consistent with the CAP's measure pertaining to data centers.

Based on project design details provided by the applicant, the average rack power rating for the data center would be less than 15-kW. Therefore, a PUE study is not required and the project would be consistent with this CAP goal.

Focus Area 4: Waste Reduction
Goal: Increase recycling opportunities for all disposed materials

Measure 4.2: Increased Waste Diversion. The CAP sets a goal to increase solid waste diversion to 80 percent through increased recycling efforts, curbside food waste pickup, and construction and demolition waste programs. The project would be required to participate in the City's Construction and Demolition Debris Recycling Program by recycling or diverting at least 50 percent of waste materials generated.

Focus Area 5: Off-Road Equipment
Goal: Ensure efficient operations of off-road equipment

Measure 5.2: Alternative construction fuels. This CAP measure requires construction projects to comply with BAAQMD best management practices, including alternative-fueled vehicles and equipment. As a condition of approval, project construction would follow BAAQMD basic construction measures including limiting idling times to 5 minutes or less and limiting vehicle speeds to 15 miles per hour or less.

Applicable General Plan Policies

The City adopted the 2010-2035 General Plan to accommodate planned housing and employment growth through 2035. As part of the City's General Plan Update, new policies were adopted that address the reduction of GHG emissions during the planning horizon of the General Plan. The General Plan is organized chronologically into three phases. Phase II covers the time period from 2015 through 2023.

For the project, implementation of policies that call for increased energy efficiency or reduced energy use would effectively reduce indirect GHG emissions associated with energy generation as required in the General Plan. Consistency of the project with relevant General Plan policies is described in **Table 2-10**.

The General Plan also includes a number of policies that call for or encourage the use of Transportation Demand Measures (TDM) and other programs to reduce emissions associated with vehicle travel. As discussed in more detail in **Section 2.17, Transportation and Traffic**, the project would generate very few vehicle trips to the project site. Since GHG emissions from mobile sources would be relatively low for this project, the evaluation of consistency with transportation policies is not addressed further.

As shown in **Table 2-10** and described above, the project would not conflict with general plan policies adopted for the purpose of reducing the emissions of GHGs. Thus, this impact is less than significant. No mitigation is required.

Table 2-10 Project Consistency with City of Santa Clara General Plan and CAP

Emission Reduction Policy	Project Consistency
General Land Use Policies	
Goal 5.10.3-G1. Energy supply and distribution maximizes the use of renewable resources. • Policy 5.10.3-P1. Promote the use of renewable energy resources, conservation and recycling programs.	**Consistent.** The project would source its electricity from SVP, which has a renewable energy procurement portfolio of 38 percent renewable resources. SVP would be subject to the provisions of SB 100, which requires utility providers to increase their renewable energy procurement portfolios to 60 percent by 2030 and 100 percent by 2045. Therefore, the project would be consistent with Goal 5.10.3-G1.
Goal 5.10.3-G2. Implementation of energy conservation measures to reduce consumption. • Policy 5.10.3-P4. Encourage new development to incorporate sustainable building design, site planning and construction, including encouraging solar opportunities. • Policy 5.10.3-P5. Reduce energy consumption through sustainable construction practices, materials and recycling. • Policy 5.10.3-P6. Promote sustainable buildings and land planning for all new development, including programs that reduce energy and water consumption in new development.	**Consistent.** The project would be required to comply with Title 24 standards, thereby increasing the energy conservation achieved by building design. The project would also be required to comply with the requirements of 2019 CALGreen, which mandate a minimum diversion rate of 65 percent for construction and demolition waste. Furthermore, the project would include high-efficiency plumbing fixtures, which would reduce water consumption and associated energy use. Therefore, the project would be consistent with Goal 5.10.3-G3, Policy 5.10.3-P4, Policy 5.10.3-P5, and Policy 5.10.3-P6.
Santa Clara Climate Action Plan	
Focus Area 2: Energy Efficiency Programs • Goal: Maximize the efficient use of energy throughout the community.	**Consistent.** The PUE is calculated by dividing the total demand of the data center by the critical IT load (42U 2019). The closer the PUE is to a value of 1, the more efficient data center operations are. The facility would be designed to achieve an average of 5 kWh per rack, and a PUE rating of 1.35. A PUE between 1.2 and 1.5 is considered "very efficient." Therefore, the project would implement energy-efficient

• Policy 2.3. Encourage new data centers with an average rack power rating of 15 kW or more to identify and implement cost effective and energy-efficient practices.	practices that maximize the efficient use of energy and would be consistent with Policy 2.3.

Source: Rincon, 2019

Therefore, based on the above, the project would be consistent with the City's CAP and would not conflict with a plan or policies developed to reduce GHG emissions. The project's consistency with the goals of SB 32 and the 2017 Scoping Plan is addressed under **question "a"**. This impact would be less than significant.

2.9 Hazards and Hazardous Materials

	Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☒	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☒	☐
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

Discussion

Hazardous Materials Use and Storage Regulation

Within the City, a number of local, state, and federal regulations govern the use, transport, and storage of hazardous materials. A Hazardous Materials Business Plan is generally required of any facility which generates any quantity of hazardous waste or which handles hazardous materials in amounts greater than 55 gallons for liquids, 500 pounds for solids, and 200 cubic feet for compressed gases. The implementation and enforcement of these local, and state and federal regulations regarding the use, storage and transport of hazardous materials (including setbacks for flammable storage from property lines) reduce the potential for impacts to off-site land uses, in the event of an accidental release.

Site History

The project site is located in an industrial and commercial area. Surrounding land uses consist of commercial and industrial operations, including a physical therapy and care office and an industrial hardware store. A Phase I environmental site assessment (ESA) was completed for the project site in February 2019 (see **Appendix E**).

Based on research conducted as a part of the Phase I ESA, the project site was historically used as an orchard until the 1970s. The project site was first developed in 1973 and initially occupied by Spectra Physics, which manufactured and tested liquid chromatography products. A partially-buried 300-gallon underground storage tank (UST) was used by Spectra-Physics to collect a waste stream which included methanol and acetone. Sampling of ground water from a monitoring well in May 1986 reportedly did not detect acetone or methanol.

After Spectra Physics, other businesses occupied the building including Tandem Computers (1975), Ultratech Stepper (1984 to 1990), Citation Press (1994-2004), Microbar Systems (1995-1997), and Celeritek (1997-2003). In 2006, the building was converted into the existing multi-tenant office suites.

Celeritek (1997-2003) stored compressed gases, acids, alcohols, adhesives, and cleaning solvents. Citation Press (1994-2004) stored up to 600 pounds of waste ink, 55 gallons of waste solvent, 60 gallons of waste liquid, 500 gallons of hydrocarbons and water, 600 gallons of aqueous gloss coating and 2500 pounds of printing ink. No spills were reported at these businesses.

Potential Sources of Contamination

The Phase I ESA (**Appendix E**) included a search of federal, state, and local environmental databases for potential contamination sources on properties within 1 mile of the project site. Several database listings were identified for the project site, associated with Spectra-Physics, Citation Press, and America REIT II Corporation. The listing associated with Spectra-Physics was in relation to storage and disposal of hazardous materials and the UST. The listing is closed, indicating no further action is required, and no violations or spills were reported. Similarly, Citation Press was listed in association with storage and

disposal of hazardous materials and no violations were reported. The listing for America REIT II Corporation notes waste disposal as “unspecified organic liquid mixtures”. Three other business names are listed as associated with the project site, and all were previously permitted to generate and/or dispose of hazardous materials. No violations were documented.

Agency databases identify several off-site spill accidents which may have impacted groundwater quality at the project site. These include Honeywell at 3001 Stender Way, Electroglas at 2901-3001 Coronado Drive, Synertek at 3050 Coronado Drive, and Intel at 2880 Northwestern Parkway. Based on the information reviewed in the Phase I ESA, groundwater near these facilities has been impacted by volatile organic compounds (VOCs). However, these properties are located down-gradient or at a cross-gradient to the project site, and based on the known direction of groundwater flow it is unlikely that contaminated groundwater has migrated under the project site.

Due to this agricultural history, it is likely agricultural chemicals, such as pesticides, herbicides, and fertilizers, were used on the site.

Asbestos and Lead-Based Paint

Since the existing building was constructed prior to 1978, building materials containing asbestos and lead-based paint may be present. However, asbestos-containing building materials and lead-containing paint was not assessed in the Phase I ESA.

Airport Hazards

The project site is approximately 2.4 miles northwest of San Jose International Airport, outside of the airport’s noise impact area and Airport Influence Area as defined by the Airport Land Use Commission (ALUC). The project would not require referral to the ALUC and would not require an avigation easement to the City of San Jose.

a) Would the project create a significant hazard to the environment or to the public through the routine transport, use, or disposal of hazardous materials?

Less than Significant. The project would involve the use of common types of potentially hazardous materials such as cleaners, pesticides for landscaping, and diesel fuel for backup generators. Truck trips to deliver diesel fuel and other hazardous materials are expected to reach the project site via US-101, San Tomas Expressway, Coronado Drive, Stender Way, and possibly other local streets which connect the project site to US-101 and San Tomas Expressway. Above ground fuel storage tanks would be subject to all requirements set forth in Chapter 6.67 of the California Health and Safety Code (§ 25270 – 25270.13). All potentially hazardous materials used on the project site would be contained, stored, and used in accordance with manufacturer’s instructions and handled in compliance with applicable standards and regulations. In accordance with federal and state law, the project would be required to disclose hazardous materials handled at reportable amounts. Additionally, the project applicant would be required to prepare an emergency response and evacuation plan, conduct hazardous materials training (including remediation of accidental releases, including diesel fuel), and notify employees who work in the vicinity of hazardous materials, in accordance with federal Occupational Health and Safety Administration (OSHA) and California

Division of Occupational Safety and Health (Cal OSHA) requirements. For transport and handling of fuel, Cal OSHA requirements include establishment of an Injury and Illness Prevention Program (CCR Title 8 § 6760) and also specify design requirements for underground fuel storage tanks (CCR Title 8 § 6807).

As the Certified Unified Program Agency for Santa Clara, the Santa Clara Fire Department Hazardous Materials Division (Hazardous Materials Division) is authorized to implement the California Aboveground Petroleum Storage Act (Act). The Hazardous Materials Division inspects facilities that store petroleum products in aboveground tanks for compliance with the Act and applicable sections of the federal Spill Prevention, Control, and Countermeasure (SPCC) rule. Installation of above ground tanks on the project site would be subject to this inspection and project operation would comply with all relevant regulations.

The Hazardous Materials Division also administers the California Accidental Release Prevention Program within Santa Clara. The program requires assessment of hazard potential from the storage of hazardous materials on-site and the implementation of a Risk Management Plan to minimize the risk of accidental release. The fuel storage tanks would pose a risk to soils if an accidental release of fuel occurred. A Risk Management Plan would be required for the project to ensure the storage tanks are maintained and operated in a way that minimizes the risk of release. In the event of an accidental release, the Hazardous Materials Division would oversee required cleanup and remediation as required by local, state and federal regulation.

With implementation of the required permit conditions and regulatory controls outlined above, impacts related to the routine use, transport, or disposal of hazardous materials would be less than significant. No mitigation is required.

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less than Significant with Mitigation. Construction activities would require building foundation work, including grading and excavation. Although the project site was previously used for agricultural and industrial purposes, available records indicate there are no known spills or other contamination on the site. However, as documented in the Phase I ESA, soil sampling is recommended to evaluate whether chemicals from agricultural or industrial uses are present. If present, hazardous materials would pose a risk to workers during construction, and are unlikely to pose a risk after construction based on the planned use of the project site. **Mitigation Measure HAZ-1** would be required to ensure that any hazardous materials onsite are documented and an appropriate worker health and safety plan is developed, if required. This would ensure that any hazardous materials present do not result in a hazard to construction workers.

> **Mitigation Measure HAZ-1:** A Phase II Environmental Site Assessment (ESA) shall be performed prior to construction. If the Phase II ESA determines there is no contamination present on the project site, no further action will be required. If contamination is encountered, all feasible recommendations from the Phase II ESA shall be implemented including but not limited to the

development of a worker safety plan to ensure that construction workers are not exposed to unsafe levels of soil or groundwater contamination, and a disposal plan to ensure contaminated soils and/or groundwater are properly and safely removed from the site and disposed at appropriate facilities.

Because the existing building was constructed prior to 1978, asbestos and lead-based paint may be present and demolition activities could release hazardous materials into the environment. Therefore, **Mitigation Measure HAZ-2** would be required to ensure that hazardous materials would not present a threat to human health or the environment.

Mitigation Measure HAZ-2: A survey by a certified asbestos consultant to assess asbestos, lead-containing paint, and other potentially hazardous waste will be conducted prior to demolition activities. Disposal of any hazardous materials found during this survey will be coordinated with Mission Trail Waste Systems.

With implementation of **Mitigation Measures HAZ-1** and **HAZ-2**, this impact would be less than significant.

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one quarter-mile of an existing or proposed school?

No Impact. The closest school to the project site is Bracher Elementary School, which is approximately 0.7 miles south of the project site. Because the project site is not located within a 0.25-mile radius of a school, it would not emit any hazardous emissions on educational establishments. No impact would occur.

d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less than Significant with Mitigation. A search of the Department of Toxic Substances Control EnviroStor database along with a search of the San Francisco Bay Regional Water Quality Control Board (RWQCB) GeoTracker database show there are no known hazardous materials or spills on the project site. However, there is the potential for soil and/or groundwater contamination based on historic uses of the project site. **Mitigation Measure HAZ-1** requires that soil and groundwater sampling be completed as a part of a Phase II ESA prior to construction, and that recommendations from the Phase II ESA be implemented. This would ensure that any contamination present on the site is appropriately handled and removed, and that construction workers are protected from unsafe exposure to hazardous materials. With implementation of this mitigation measure, this impact would be less than significant. No mitigation is required.

e) For a project located within an airport land use plan, or where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

Less than Significant. The project site is located approximately 2.4 miles northwest of San Jose International Airport. The project site is outside of the Airport Influence Area and Airport Safety

Zones. According to FAA regulations, the obstruction surface—or the height at which an object may present an obstruction to aircraft flight—at the project site begins at approximately 212 feet above ground. Because the project would be approximately 85 feet in height, any hazard to planes taking off from or landing at the airport would be negligible. Therefore, with adherence to existing regulation, impacts to airport safety would be less than significant. No mitigation is required.

f) Would the project impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than Significant. The City adopted the Santa Clara City Emergency Operations Plan in 2016 to assign responsibilities to designated city leaders, employees, departments, agencies, boards, and community and volunteer organizations in the event of a disaster. Santa Clara Fire Department (SCFD) currently serves the project site. Please refer to **Section 2.15, Public Services**, for more detailed information regarding fire and emergency services. The project does not include any changes to the existing public roadways that provide emergency access to the site or surrounding area. Operation of the project would require a maximum of 18 employees to be on-site over a 24-hour period (8 daytime employees and 5 nighttime employees); however, this increase is not expected to result in a significant increase in demand for emergency access. Therefore, the project would not impair the implementation of, or physically interfere with the City's Emergency Operations Plan, adopted in 2016. Impacts would be less than significant, and no mitigation is required.

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

No Impact. The project site is located in a developed urban area contains no wildland areas. San Tomas Aquino Creek is east of the project site, but it contains concrete retaining walls and sparse vegetation surrounding the creek. Neighboring cities such as Sunnyvale, San Jose, and Cupertino adjacent to the City limits are also fully developed. The project site is not located adjacent to natural areas that would be subject to wildland fires. Therefore, the project would not result in any significant exposure of people or structures to wildland fires. No mitigation is required.

2.10 Hydrology and Water Quality

	Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage patterns 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:				
i) result in a substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii) 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	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Discussion

Water Supply

The City operates 26 wells that tap underground aquifers and make up about 62 percent of their potable water supply. A water recharge program is administered by Valley Water from local reservoirs, and imported water enhances the dependability of the underground aquifer. The remainder of the City's water supply consists of water imported from two wholesale water agencies. For certain non-potable uses, recycled water from the San Jose/Santa Clara Regional Wastewater Facility is used. This is highly treated water delivered through separate pipelines. This source makes up about 16 percent of water sales in the City. Recycled water offsets the use of potable sources in drought-prone California and is a reliable source for irrigation for conservation of potable sources.[22]

Valley Water approved and adopted an updated Urban Water Management Plan (UWMP) in 2015. Similarly, the City updated its UWMP in 2015 (the plan was adopted in November 2016). The City's 2015 UWMP did not specifically include this project; however, the UWMP did include projected increases in water demand due to densification and intensification of both residential and non-residential land uses.

Stormwater

The federal Clean Water Act and California's Porter-Cologne Water Quality Control Act are the primary laws related to water quality. Regulations set forth by the US EPA and the State Water Resources Control Board have been developed to fulfill the requirements of this legislation. US EPA's regulations include the NPDES permit program, which controls sources that discharge pollutants into waters of the US (e.g., streams, lakes, bays, etc.). These regulations are implemented at the regional level by water quality control boards, which for the City area is the San Francisco Bay RWQCB.

The RWQCB has issued a Municipal Regional Stormwater NPDES Permit (Permit Number CAS612008) (MRP). The regional permit applies to 77 Bay Area municipalities, including the City. Under provisions of the NPDES Municipal Permit, redevelopment projects that disturb more than 10,000 square feet are required to design and construct stormwater treatment controls to treat post-construction stormwater runoff. Post-construction runoff must be treated by using Low Impact Development (LID) treatment controls, such as biotreatment facilities.

In addition to water quality controls, the Municipal Regional Stormwater NPDES permit requires all 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, silt pollutant generation or other impacts to beneficial uses of local rivers, streams, and creeks. Projects may be deemed exempt from the permit requirements if they do not meet the size threshold, drain into tidally influenced areas or directly into the Bay, drain into hardened channels, or are infill projects in subwatersheds or catchment areas that are greater than or equal to 65 percent impervious (per the Santa Clara Hydromodification Management Applicability Map). Catchments that

[22] City of Santa Clara Water & Sewer Utility. Available: https://www.santaclaraca.gov/our-city/departments-g-z/water-sewer-utilities/recycled-water-utility. Accessed: December 2019.

receive storm runoff from the Project Site drain to a hardened channel, and the project is infill in an area that is 84 percent impervious.[23] Therefore, the project site is not subject to the hydromodification requirements of the Municipal NPDES permit.

Groundwater

During geotechnical investigations (see **Appendix D**), groundwater was encountered at depths ranging from approximately 10 to 18.5 feet below the existing grade. Historic high groundwater levels in the immediate site vicinity are approximately 8 to 9 feet below existing grade. Fluctuations in groundwater levels are common due to seasonal fluctuation, underground drainage patterns, regional fluctuations, and other factors.

Tsunamis and Seiches

Seismically-induced ocean waves are caused by displacement of the sea floor by a submarine earthquake and are called tsunamis. Seiches are waves produced in a confined body of water such as a lake or reservoir by earthquake ground shaking or landsliding. Seiches are possible at reservoir, lake or pond sites. There are no large bodies of water near the project site.

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less than Significant. Under existing conditions, the project site consists of mostly impervious surfaces and some landscaped perimeter areas. Implementation of the project would remove and replace approximately 150,000 square feet of impervious surface (data center, substation, generator yard, and parking lot). Therefore, the project would be subject to the requirements of Provision C.3 of the Municipal Regional NPDES permit and would be required to comply with the City's Best Management Practices (BMPs) for erosion and sedimentation control during construction, as outlined in the Municipal Regional NPDES permit.

As more than 1 acre of impervious surface would be disturbed during construction, the project would be subject to a State NPDES General Construction Permit which would require submittal of a Notice of Intent to the State Water Resources Control Board. Additionally, the project would be subject to a post-construction NPDES Permit and Provision C.3 requirements, requiring incorporation of source control design elements to keep pollutants away from stormwater. Maintenance agreements, such as parking lot sweeping and catch basin cleaning, as well as storm drain signs and stenciling would be required by NPDES permit conditions.

Consistent with the City's LID requirements, the project would also include bioretention areas in landscaping design to ensure that particulates are removed from stormwater prior to discharge into a storm drain or creek. Compliance with the standard control measures outlined in the NPDES permit would ensure that impacts to water quality or waste discharge are less than significant

[23] Existing impervious area is 140,006 square feet out of a total of 167,288 square feet of property area. This calculates to approximately 84 percent impervious area and 16 percent pervious area.

during project operation. There is potential for degradation of surface or ground water quality, but with the permit above, impacts would not be significant and would be monitored accordingly.

Compliance with the control measures outlined in the State NPDES General Construction Permit would further ensure that impacts to water quality or waste discharge are less than significant. No mitigation is required.

b) 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. The estimated water demand for the project would be 5,865,325 gallons (18 acre-feet) annually, or 16,070 gallons per day. This is less than the amount of water required by a 500 dwelling unit development (67.8 acre-feet annually) and does not require preparation of a Water Supply Assessment (WSA).[24] Additionally, it represents a decrease in water use compared to existing conditions. Groundwater would not be extracted from the site via wells; the City would provide potable water services to the project through existing infrastructure. The UWMP identifies groundwater as a source of water supply for the project area and includes projected increases in water demand due to densification and intensification of non-residential land uses. The City's municipal water system currently has the capacity to provide up to 28.8 million gallons of water per day.[25]

Valley Water tracks water supply, demand, and groundwater recharge on a monthly basis. As of December 2019, total groundwater storage was predicted to rise within normal levels established in the Santa Clara County Water District's Water Shortage Contingency Plan.[26] The Water District's projections are based on estimates generated from land use designations across the service area. The project would introduce a new use to the site, and this use is permitted under the site's existing zoning and land use designation. Thus, the additional demand that would be placed on groundwater supplies by operation of the data center was reasonably anticipated in the broader demand calculations developed by Valley Water, and the City would have sufficient water supply to service the project. The project would not directly interfere with groundwater recharge, such as through the addition of significant amounts of new impervious surface or through the use of wells. Therefore, impacts to groundwater recharge or depletion from water use would be less than significant. No mitigation is required.

c) Would the project 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:

i. Result in a substantial erosion or siltation on- or off-site;

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[24] California Water Code Section 10912(a)(3).
[25] City of Santa Clara Water & Sewer Utility. Available: https://www.santaclaraca.gov/our-city/departments-g-z/water-sewer-utilities/recycled-water-utility. Accessed: December 2019.
[26] Valley Water. 2019. *Groundwater Condition Report, Santa Clara County*. Available: https://www.valleywater.org/sites/default/files/2019-12/Final_Dec_2019_Report.pdf. Accessed: December 2019.

Less than Significant. The project site is located within the San Francisco Bay Watershed. Natural drainage features within this watershed include the Calabazas Creek, Saratoga Creek, and San Tomas Aquino Creek. San Tomas Aquino Creek in located adjacent to the project site, but implementation of the project would not result in alteration of the creek or any work in or near the creek. The creek already contains retaining walls to prevent future erosion. As described above, the project would include demolition of existing structures and impervious surfaces and construction of a new building and other impervious surfaces, resulting in an amount of impervious surface that is similar to existing conditions. Adherence to the required NPDES permitting described above would ensure the project does not result in substantial erosion. This impact would be less than significant. No mitigation is required.

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;

OR

iii. 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

Less than Significant. The project would alter the drainage of the site to effectively convey stormwater within the new site plan. A drainage plan has been prepared and would be implemented as a part of the project. Through the City's design review process and standard conditions of approval, the applicant would be required to develop an acceptable on-site stormwater management plan. With adherence to this plan, stormwater volumes from the site would not be increased over existing conditions.

As project construction would involve ground disturbing activities of 1 acre or more, the project would be subject to the Municipal Regional NPDES Permit. This permit would require all post-construction runoff to be treated using LID treatment controls, such as biotreatment facilities. The site drainage would convey stormwater to onsite retention areas (LID) and/or to the City's stormwater system.

Once operational, the amount of surface runoff generated by the project would not increase compared to existing conditions, in compliance with the NPDES permit and City regulations. For this reason, the project would not contribute to stormwater runoff which would exceed the capacity of the existing or planned stormwater drainage system or to offsite flooding. As shown in **Figure 9** below, the project is located within FEMA Flood Zone X, areas determined to be outside the 0.2% annual chance floodplain. With implementation of the following BMPs required by the City, the project would not contribute substantial amounts of sediment to storm drain systems, and impacts resulting from erosion.

Prior to construction, the applicant shall prepare and submit a Stormwater Pollution Prevention Plan (SWPPP) to the City, delineating efforts to control the discharge of stormwater pollutants. The SWPPP shall include control measures during the construction period for:

- Soil Stabilization practices,
- Sediment control practices,

- Sediment tracking control practices,
- Wind erosion control practices, and
- Non-storm water management and waste management and disposal control practices.

As such, the project would not contribute substantial amounts of sediment to storm drain systems, and impacts resulting from erosion or siltation during construction would be less than significant. No mitigation is required.

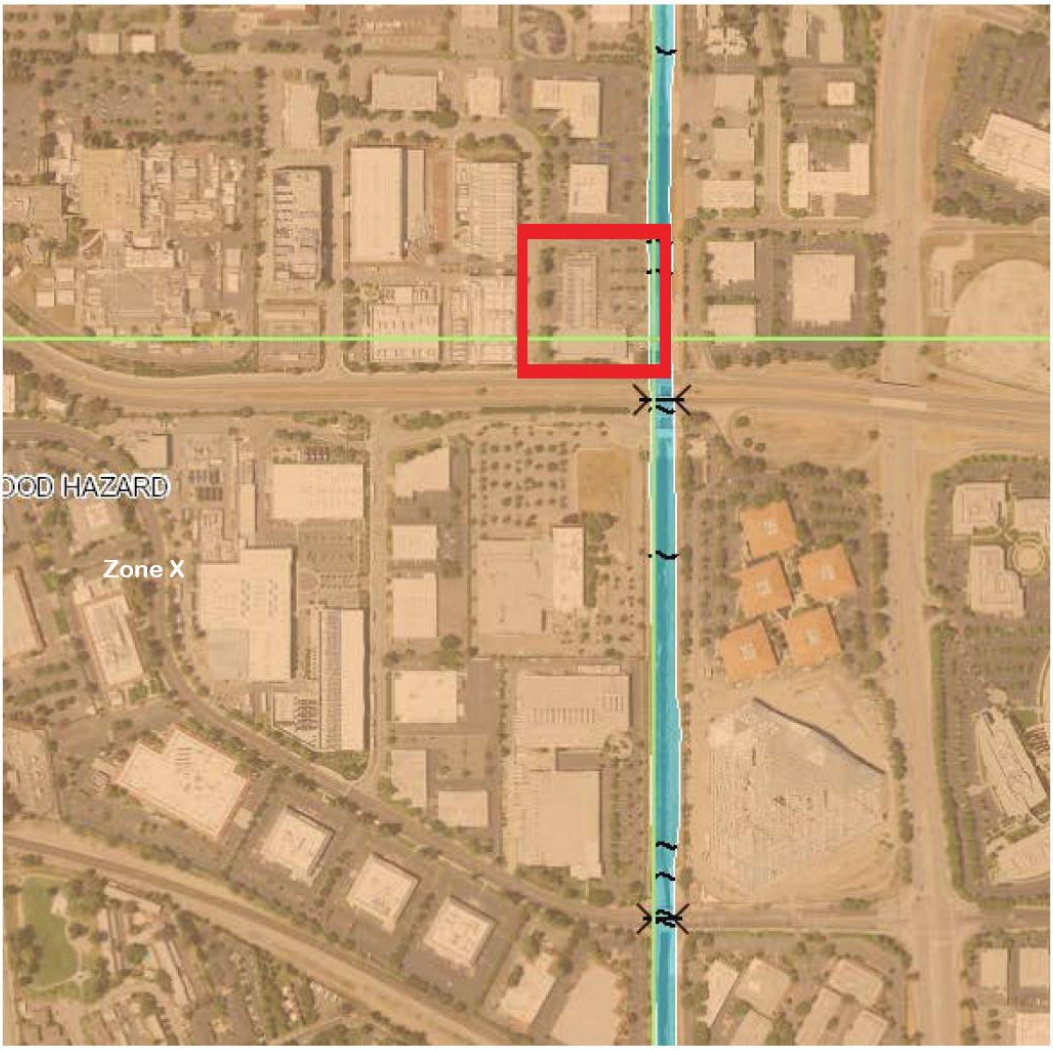
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Less than Significant. As described above and shown in **Figure 9** below, the project is located within FEMA Flood Zone X, areas determined to be outside the 0.2% annual chance floodplain. The project site is not located in a tsunami or seiche zone. The project site is located approximately 24 miles from the Pacific Ocean and approximately 4 miles from San Francisco Bay; due to this distance, potential impacts related to a tsunami are minimal. Additionally, the project site is not susceptible to impacts resulting from seiche because of its distance from any large bodies of water. This impact would be less than significant.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less than Significant. With implementation of permits and mitigation measures previously discussed, the project would not conflict with any activities outlined the 2016 Valley Water Groundwater Management Plan.[27] Therefore, the impact would be less than significant, and no mitigation is required.

[27] Valley Water. 2019. *Groundwater Management Plan, Santa Clara County*. Available: https://s3.us-west-2.amazonaws.com/assets.valleywater.org/2016%20Groundwater%20Management%20Plan.pdf. Accessed: December 2019.



Not to Scale

Legend

Special Flood Hazard Area Subject to Inundation by the 0.2% Annual Chance Flood

Project Site

N

Flood Hazard Zones Figure 9

Source: FEMA Flood Map Service Center, 2017

2.11 Land Use and Planning

	Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

Discussion

The project site is in the central part of the City, south of US-101 and just west of the San Tomas Expressway. Land use designations surrounding the project site consist of light industrial, public/quasi-public, and low intensity office/research and development uses. The project site is zoned Planned Development (PD), however, the project seeks to rezone to Light Industrial (ML) There are no residential uses in the immediate vicinity of the project site. Surrounding development consists of one- to five-story buildings with large surface parking lots. Nearby uses include data centers, research and development buildings, biotech companies and other digital technology-oriented uses

CoreSite's SV3, SV4, SV5, SV6, SV7 & SV8 data centers are immediately west of the project site along Stender Way and Coronado Drive. Corporate offices for ON Semiconductor (Semiconductor supplier) are immediately to the north while to the east is the San Tomas Aquino Creek and bike trail. Further to the east across the creek on Owen Street are various offices for Allegion, Crystal Instruments, AccuImage and Sentek Dynamics. The site is bound on the south by Central Expressway.

a) Would the project physically divide an established community?

No Impact. The project would not physically divide an established community. The project site is located in a developed area of commercial, industrial, public/quasi-public, and low intensity office/research and development uses. The project is consistent with the pattern of surrounding land uses.

Project improvements would generally be confined to an existing parcel that is accessible from public streets. Therefore, the project would not physically divide an established community, and no impact would occur.

b) Would the project cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less than Significant. The General Plan land use designation for the project site is Light Industrial. No changes to the General Plan land use designation are proposed. This classification is intended to accommodate a range of light industrial uses, including general service, warehousing, storage, distribution and manufacturing. Data centers are a permitted use in the Light Industrial land use designation.

Historically, the project site was zoned Light Industrial, and is surrounded by industrial development The project would require rezoning from Planned Development (PD) back to Light Industrial (ML), which will require City Council approval after a recommendation by the Planning Commission. Under the zoning ordinance, the Light Industrial zoning district is intended to provide an optimum general industrial environment, and it is intended to accommodate industries operating substantially within an enclosed building. The project would be consistent with the Light Industrial zoning district once the project site is rezoned from Planned Development to Light Industrial. The project applicant also seeks minor modification to increase the permitted height from 70 feet to 85 feet and a minor modification to land-bank a portion of the required parking. The rezoning and minor modifications would be completed as a part of the project approvals.

Employment density at the proposed facility would be relatively low, which is consistent with the intent of the Light Industrial General Plan Land Use designation. The General Plan provides maximum floor area ratios (FAR) for industrial uses in the City ranging from 0.45 for heavy industrial uses to 2.0 for high-intensity office/research and development uses. The maximum FAR for light industrial uses is 0.6. These floor area ratios reflect intended employment intensities assumed in the General Plan rather than assumptions or requirements for open space around industrial buildings. While the FAR for the proposed SV9 data center building would be 1.47 and therefore greater than the 0.6 FAR maximum for light industrial uses in the General Plan, it would not conflict with the uses or assumed employment intensity for the Light Industrial land use designation.

Therefore, the project would be consistent with the land use and zoning of the project site and would not result in any environmental impact related to land use or zoning. This impact would be less than significant.

2.12 Mineral Resources

	Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Discussion

The City's General Plan states that there are no significant mineral resources located within the City.

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. There are no significant mineral resources located within the City. Therefore, the project would not have an impact to mineral resources that would be of value to the region or residents of the state. No impact would occur.

b) Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact. As noted above, there are no significant mineral resources located within the City. Therefore, the project would not have an impact to mineral resources that would be of value to the region or residents of the state. No impact would occur.

2.13 Noise

	Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Generation of excessive ground borne vibration or ground borne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

Discussion

Information in this section was drawn from a site-specific noise and vibration study prepared in December 2019. The report is included in its entirety as **Appendix F** to this Initial Study.

Noise is typically described as any unwanted or objectionable sound and is technically described in terms of the loudness of the sound (amplitude) and frequency (pitch) of the sound. The standard unit of measurement of the loudness of sound is the decibel (dB). However, because the human ear is not equally sensitive to sound at all frequencies, the A-weighted decibel scale (dBA), which gives greater weight to the frequencies of sound to which the human ear is most sensitive, was devised to relate noise to human sensitivity.

The dBA measurement system is not an effective way to measure noise levels within a community, since community noise is always fluctuating and changing. Therefore, other methods of describing noise levels have been developed, the most common of which are the Community Noise Equivalent Level (CNEL) and

the Day-Night Noise Level (L_{dn}). L_{dn} is an average of all noise levels recorded over a 24-hour period, with a 10-dB penalty for nighttime noise that occurs between 10:00 p.m. and 7:00 a.m. CNEL is also an average sound level over a 24-hour period, with a 10 dB penalty added for noise between 10:00 p.m. and 7:00 a.m. and an additional 5 dB penalty added for the evening hours of 7:00 p.m. to 10:00 p.m.

Applicable Noise Standards

The City's General Plan identifies noise and land use compatibility standards for various land uses in the City. The noise standard is 70 CNEL for industrial land uses and 55 dBA CNEL for residential land uses. Noise levels exceeding 70 dBA CNEL are considered incompatible with residential land uses. Compatibility levels are shown in **Table 2-11**.

Table 2-11 General Plan Noise Standards

Land Use Category	Exterior Noise Exposure CNEL (dB)					
	55-60	60-65	65-70	70-75	75-80	80-85
Residential	*	**	***	****	****	****
Office Buildings, Business Commercial and Professional, Retail	*	*	**	***	****	****
Industrial, manufacturing, utilities, agriculture	*	*	*	***	***	****
** Generally Acceptable*	*Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements. Mobile homes may not be acceptable in these areas. Some outdoor activities might be adversely affected.*					
*** Conditionally Acceptable*	*New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Outdoor activities may be adversely affected.* *Residential: Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.*					
**** Generally Unacceptable*	*New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design. Outdoor activities are likely to be adversely affected.*					
***** Unacceptable*	*New construction or development shall not be undertaken.*					

Source: Santa Clara 2010-2035 General Plan, 2010

Chapter 9.10 of the Santa Clara City Code established the following regulations on construction work and fixed sources (Section 9.10.040) of noise:

- Construction activities are not permitted within 300 feet of residentially zone property except within the hours of 7:00 a.m. and 6:00 p.m. on weekdays and 9:00 a.m. and 6:00 p.m. on Saturdays. No Construction is permitted on Sundays or holidays, if there are residential properties within 300 feet.
- Noise levels from fixed sources are limited at residential uses and public space land uses (e.g., Mission College) to 55 dBA during the daytime (7:00 a.m. to 10:00 p.m.) and 50 dBA during the nighttime (10:00 p.m. to 7:00 a.m.).
- Noise levels at commercial and office land uses are limited to 65 dBA during the daytime (7:00 a.m. to 10:00 p.m.) and 60 dBA during the nighttime (10:00 p.m. to 7:00 a.m.).
- Noise levels at light industrial land uses are limited to 70 dBA day or night. The noise limits are not applicable to emergency work, including the operation of backup generators, pumps, or other equipment necessary to provide services during an emergency.[28]

Given that there are no residentially zoned properties or other sensitive land uses within 300 feet of the site (the closest residential area is approximately 1,400 feet from the project boundary), the project would not be subject to the Santa Clara City Code regulation on construction hours. The project would be subject to noise level performance standards for fixed noise sources, commercial and office uses, and light industrial uses. Section 9.10.070(a) of the City Code exempts "emergency generators and pumps or other equipment necessary to provide services during an emergency."

Project Site Noise

A noise monitoring survey was performed to quantify and characterize ambient noise levels at the site and in the project vicinity. The monitoring survey included two short-term noise measurements. The measurements ranged between 63 to 76 dBA L_{eq} between the hours of 4:00pm to 5:00pm, respectively. The noise monitoring survey found that the most predominate sources of noise measured in the project vicinity includes vehicular traffic, jet aircraft, and mechanical noise.

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less than Significant with Mitigation. As summarized below, with mitigation, both construction and operational noise impacts would be less than significant.

[28] City of Santa Clara City Code. Chapter 9.10: *Regulation of Noise and Vibration*. Available: http://www.codepublishing.com/CA/SantaClara/#!/SantaClara09/SantaClara0910.html. Accessed: December 2019.

Construction

Noise impacts resulting from construction depend upon the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise-sensitive areas.

Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (e.g., early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise-sensitive land uses, or when construction lasts over extended periods of time. Project construction is anticipated to occur over an approximate period of 36-48 months. However, noise would be generated during only a portion of this period, as interior construction activities would not be anticipated to generate substantial noise.

To evaluate whether the project would generate a substantial periodic increase in short-term noise levels at off-site sensitive receiver locations, this analysis uses a construction-related noise level threshold based on the Federal Transit Authority's (FTA) *Transit Noise and Vibration Assessment Manual* recommended noise level criteria for determining construction noise impacts as outlined in **Table 2-12**.

Table 2-12 Construction Noise Criteria

Land Use	dBA Leq 8-Hour	
Residential	80	70
Commercial	85	85
Industrial	90	90

Source: FTA, 2018

Over the course of a typical construction day, construction equipment would be located as close as 250 feet to the nearest industrial property, 1,400 to the nearest residential property, and 2,000 feet to the nearest commercial property. At a distance of 250 feet, construction activities are estimated to generate a noise level of approximately 66 dBA Leq (8-hour). Therefore, construction noise levels would not exceed 80 dBA Leq at any residential land use, 85 dBA Leq at any commercial property, or 90 dBA Leq at any industrial property. Construction of the project would not exceed City noise standards at surrounding properties.

Operation

Off-Site Traffic Noise

The project would generate approximately 248 trips per weekday. The project trip generation was estimated using the Institute of Transportation Engineers (ITE) established rate for data centers: 0.99 trips per 1,000 square feet. The rate has not been discounted to factor in pass-by trips or mode

split such as biking or transit. Based on the number of employees required for the project (18), the 248 trips are likely an overestimate of actual trips that would go to and from the project site. However, this number is used to present an analysis that factors in a reasonable worst-case scenario using established rates for data centers.

The existing 54,000 square foot light industrial use at the project site is estimated to generate approximately 268 trips per weekday based on the ITE trip generation factor for this use: 4.96 trips per 1,000 square feet. Thus, the project would result in a net decrease in trips on local roadways as compared to existing land use. Because the project would reduce overall vehicle trips as compared to existing conditions, the project would not result in an off-site traffic noise impact.

On-Site Operational Noise

The project would generate non-mobile operational noise that would be typical of data center uses. **Table 2-13** summarizes project-generated hourly operational noise levels at the nearest properties. The modeled noise scenario is based on 8 of the 16 generators operating at full power for one hour during testing and maintenance. As shown in **Table 2-13**, hourly operational noise levels of eight generators would exceed the City's noise standards of 70 dBA Leq at the nearest industrial properties and 60 dBA Leq at the nearest commercial properties. Therefore, operational noise impacts would exceed City standards without the incorporation of noise abatement measures to limit the number of generators being tested at one time.

Table 2-13 Modeled Project Hourly Noise Levels

Receiver	Location	Hourly Noise Level (dBA Leq) 8 Generators	Hourly Threshold (dBA Leq)[1]	Threshold Exceeded?
R-1	2950 Stender Way	54	70	No
R-2	2972 Stender Way	50	70	No
R-3	2975 Stender Way	52	70	No
R-4	2360 Owen Street	69	70	No
R-5	2380 Owen Street	**72**	70	**Yes**
R-6	2800 San Tomas	70	70[2]	No
R-7	2400 Condensa Street	**71**	70[2]	**Yes**
R-8	2500 Condensa Street	67	70	No
R-9	2880 Northwestern Parkway	61	70	No

Source: Rincon, 2019

[1]Based on SCMC Section 9.10.40.

[2] Based on ambient noise level measurement location 2, the ambient noise level at these properties is 70 dBA L_{eq} during daytime hours.

Noise Abatement

To determine the cause for the noise level exceedances identified in **Table 2-13**, noise modeling results were assessed for the dominant noise sources affecting each of the receivers. Based on the

review, the backup generators were identified as the dominant source from the project at each of receiver location. Therefore, several scenarios involving the testing and maintenance of different numbers of generators were evaluated for the project site. Based on the modeling results, if testing and maintenance were limited to six generators, noise levels would be at or below City standards. **Mitigation Measure NOI-1** would require that no more than six backup generators be tested at one time. As shown in **Table 2-14**, concurrent operation of six backup generators would not exceed the City's noise standards. Therefore, operational noise impacts would be less than significant with implementation of **Mitigation Measure NOI-1**.

Mitigation Measure NOI-1: The project applicant shall ensure that no more than six generators are operated simultaneously during scheduled maintenance, and testing and these activities would only occur during the daytime between the hours of 7:00 a.m. and 10:00 p.m.

Table 2-14 Modeled Project Hourly Noise Levels – With Mitigation

Receiver	Location	Hourly Noise Level (dBA Leq) 6 Generators	Hourly Threshold (dBA Leq)[1]	Threshold Exceeded?
R-1	2950 Stendor Way	53	70	No
R-2	2972 Stender Way	49	70	No
R-3	2975 Stendor Way	51	70	No
R-4	2360 Owen Street	68	70	No
R-5	2380 Owen Street	72	70	No
R-6	2800 San Tomas	69	70[2]	No
R-7	2400 Condensa Street	70	70[2]	No
R-8	2500 Condensa Street	65	70	No
R-9	2880 Northwestern Parkway	59	70	No

Source: Rincon, 2019

[1]Based on SJMC Section 20.50.300.

[2] Based on ambient noise level measurement location 2, the ambient noise level at these properties is 70 dBA L_{eq} during daytime hours.

b) Generation of excessive ground borne vibration or ground borne noise levels?

Less than Significant. Construction activities have the potential to result in varying degrees of temporary ground vibration, depending on the specific construction equipment used and operations involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. The effects of ground vibration may be imperceptible at the lowest levels, low rumbling sounds and detectable vibrations at moderate levels, and damage to nearby structures at the highest levels. Project construction would result in vibration levels that would be felt in the immediate vicinity of construction activities and may be felt at nearby properties. Project operation would not have the potential to result in notable vibration.

SCMC Section 9.10.050 states that there would be a significant vibration impact if vibration is perceptible at the closest property line from the vibration source. This would occur if the project

would subject adjacent land uses to construction-related ground-borne vibration that exceeds the distinctly perceptible vibration annoyance potential criteria for human receivers of 0.3 inches per second peak particle velocity (in./sec. ppv). Vibration levels must be higher than 0.3 in./sec ppv to have the potential to damage structures.

The ground vibration levels associated with various types of construction equipment are summarized in **Table 2-15**. No pile driving would occur during construction of the project, and blasting would not be required. The project would including paving a large parking area which would involve the use of a vibratory roller. The vibratory roller would represent the greatest vibration source. At the nearest structures, which are as close as 75 feet from the project site, vibration levels are anticipated to be approximately 0.063 ppv in./sec. The nearest structures to the west are also data centers and do not contain vibration sensitive uses, such as laboratory equipment. However, the existing data centers have employees that may be affected by substantial vibrations. While some vibrations may be perceived, the 0.063 ppv in./sec. is less than the 0.3 in./sec ppv. recommended standard for human annoyance from transient sources. There would be no significant vibrations-related impacts, and no mitigation is required.

Table 2-15 Vibration Source Levels for Construction Equipment

Receptors	Approximate Vibration Level (in./sec .PPV)	Threshold (in./sec. PPV)	Threshold Exceeded?
R-1 and R-2	0.063	0.3	No
R-3	0.058	0.3	No

Source: Rincon, 2019

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Less than Significant. The San Jose International Airport is a public-use airport located approximately 2.4 miles southeast of the project site. The project site lies outside the 65 dBA CNEL 2022 noise contours. Exterior and interior noise levels resulting from aircraft would be compatible with the project. Therefore, this impact would be less than significant. No mitigation is required.

2.14 Population and Housing

	Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Induce substantial unplanned population growth in an area, either directly, (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion

A jobs-to-housing ratio is generated by dividing the number of jobs in a city by the number of housing units in the same city. A balance between jobs and housing can help to alleviate issues such as congestion and transportation-related environmental impacts by allowing people to work closer to their homes. Given the high cost of housing in California and in the Bay Area in particular, most households require more than one wage-earner to afford housing in the region. The jobs-to-housing ratio in the City was estimated at 2.50 in 2010 and is projected to slightly decrease to 2.48 by 2040.[29]

Construction of large employment centers can induce population growth by enticing new employees to move from other locales. Population growth can also be induced through the creation of large housing development. In either case, rapid growth can disturb the jobs-housing balance of a city to create an imbalance and produce environmental impacts by increasing demand for services and infrastructure.

a) Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less than Significant. The project is an industrial use that does not include the construction of residential units. The project is expected to require up to 18 employees, which would not result in a

[29] City of Santa Clara, General Plan, 2014.

substantial increase in employment such that population growth could be induced indirectly. No mitigation is required.

b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. There are no existing residential uses on the project site; therefore, the project would not displace individuals or residents, necessitating the construction of replacement housing elsewhere. No impact would occur.

2.15 Public Services

	Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i) Fire protection?	☐	☐	☒	☐
ii) Police protection?	☐	☐	☒	☐
iii) Schools?	☐	☐	☒	☐
iv) Parks?	☐	☐	☒	☐
v) Other public facilities?	☐	☐	☐	☒

Discussion

The information below was compiled through research of publicly available emergency service data. Although people may move to the City in order to work at the data center, it is more likely that local employees would be recruited. Regardless, this discussion assumes data center employees to be net new in order to present a conservative analysis.

Fire protection

Fire protection services for the project site are provided by the Santa Clara Fire Department (SCFD) which is comprised of 167 paid employees and a robust volunteer reserve. The SCFD has 10 fire stations

and responds to over 9,000 calls annually.[30] The closest fire station to the project site is Fire Station 2 located at 1900 Walsh Avenue, approximately 1 mile southeast of the project site.[31]

Police protection

Police service to the project site is provided by Santa Clara Police Department (SCPD) which operates from its headquarters at 601 El Camino Real, approximately 2.5 miles southeast from the project site, and the Northside Police Station at 3992 Rivermark Parkway, approximately 2 miles northeast of the project site. The SCPD has 159 sworn officers, 80 support personnel and a varying number of part-time or per diem employees, volunteers and Police Reserves.[32]

Schools and Parks

The Santa Clara Parks and Recreation Department provides parks and recreational services in the City. The Department is responsible for maintaining and programming the various parks and recreation facilities and works cooperatively with public agencies in coordinating all recreational activities within in the City. As of February 2020, the Department maintains and operates the City's 26 neighborhood parks, five mini parks, one community park, three open space sites and 14 recreation facilities. Recreation facilities include Community Centers, neighborhood park buildings and ten joint use facilities, playgrounds, restrooms, picnic areas, turf, trees, vegetation, and athletic fields. The closest neighborhood park to the project site is Bracher Park, which is approximately 0.5 miles southwest of the project site.

According to the General Plan, six public school districts serve in the City: Santa Clara Unified School District (SCUSD), San Jose Unified School District, Cupertino Union School District, Fremont Union High School District, Campbell Union School District, and Campbell Union High School District. The closest SCUSD schools to the project site are Bracher Elementary School, located at 2700 Chromite, and Scott Lane Elementary located at 1925 Scott Boulevard, 0.5 mile southwest and 1.3 mile southeast, respectively.[33]

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to

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[30] Santa Clara Fire Department. History of the Fire Department. Available: https://www.joinscfd.org/about-scfd. Accessed: October 2019.
[31] Santa Clara, Public Safety, Fire Stations and Police Stations within Santa Clara, available at: http://missioncity.maps.arcgis.com/apps/MapTour/index.html?appid=15779cefd9bc463d8bc6229b61d921d5
[32] Santa Clara Police Department. About Us. Available: http://santaclaraca.gov/government/departments/police-department/about-us. Accessed: February 2020.
[33] Santa Clara Unified School District. School Directory. Available: https://www.santaclarausd.org/site/Default.aspx?PageType=1&SiteID=8&ChannelID=44&DirectoryType=6. Accessed: October 2019.

maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

i. Fire protection impacts?

OR

ii. Police protection?

Less than Significant. Fire and police protection services are currently provided to the project site by the SCFD and SCPD. The project would adhere with current fire codes to reduce potential fire hazards and would be consistent with appropriate safety standards to minimize criminal activity. Implementation of the project would not create a substantially increased demand for police or fire services. The project would introduce a daily maximum of 18 employees the site (8 daytime employees and two shifts of 5 nighttime employees), which is anticipated to be a decrease compared to the current use of the site as office suites. Because the project would not include housing or other uses that would induce substantial population growth in the area, the project would not increase demand on fire or police protection providers such that new facilities would be required. Therefore, this impact would be less than significant. No mitigation is required.

iii. Schools?

OR

iv. Parks?

Less than Significant. The project would not include any residential uses. As stated in the introduction, this analysis assumes that all data center employees (up to 8 during the day and 5 at night) would be new to in the City. However, this small net increase in the daily employee population in the City would not result in a substantial increase in usage of local recreational facilities. Although future employees might use City parks or trails for running and similar outdoor exercise, this use would be unlikely to place a major physical burden on existing parks. If new employees were to use local recreational facilities, the number of users is likely to decrease when compared to existing conditions as the number of employees working onsite would decrease with implementation of the project. Likewise, this small net increase in daily employee population would correspond to a negligible increase in school-aged children. Therefore, the project would not have a significant impact on school or park facilities in the City. No mitigation is required.

v. Other public facilities?

No Impact. Open space and other public facilities such as libraries are typically provided to serve residents within the City. Given the project has no residential component, project implementation would not increase demand for other public facilities. Therefore, no impact would occur.

2.16 Recreation

	Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐

Discussion

As discussed under **Section 2.15, Public Services**, the Parks and Recreation Department provides parks and recreational services in the City. The Department is responsible for maintaining and programming the various parks and recreation facilities and works cooperatively with public agencies in coordinating all recreational activities within the City. According to the City's map of parks and pool facilities around the City, the nearest general use public park to the project site is Bracher Park, located 0.5 miles southwest of the project site. Effects to park and recreation resources are typically correlated to increases in population from the addition of residential uses.

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

OR

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

Less than Significant. The project would not include any residential uses. Although future employees might use City parks or trails for running and similar outdoor exercise, this use would be unlikely to place a major physical burden on existing parks and would not require the construction or expansion of recreational facilities. It is anticipated that at most, 18 employees would be present at the project site every 24 hours. It is likely that employees would live locally and therefore would

not increase the usage of nearby recreational facilities. Therefore, the project would not have a significant impact on park facilities in the City and no mitigation would be required.

2.17 Transportation

	Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d) Result in inadequate emergency access?	☐	☐	☐	☒

Discussion

The following discussion qualitatively analyzes potential impacts on the local transportation network.

Regional Access

Regional access to the project site is provided by US-101, located north of the project site. US-101 is a north-south freeway which extends northward through San Francisco and southward through San Jose. Primary access to and from US-101 is provided via San Tomas Expressway and Central Expressway.

Local Access

Roadways that provide primary vehicular circulation to the project site include Central Expressway, San Tomas Expressway, Coronado Drive, and Stender Way. Access provided by each roadway is discussed below:

- **Coronado Drive** is a two-lane divided north-south arterial in the vicinity of the project site. Coronado Drive connects Scott Boulevard to Central Expressway.

- **Stender Way** is a two-lane side street that connects local businesses to Coronado Drive and Central Expressway. Stender Way stems from Coronado Drive and terminates at Central Expressway.
- **San Tomas Expressway** is a generally north-south expressway with a full cloverleaf interchange at US-101. San Tomas Expressway becomes Montague Expressway north of US-101.
- **Central Expressway** is generally a six-lane east-west expressway.

The City's General Plan provides traffic conditions in the vicinity of the project site for existing (2008) and future (2035) conditions. The level of service (LOS) on Central Expressway between Bowers Avenue and San Tomas Expressway, where Stender Way is located, was LOS D in 2008 and is expected to become LOS E in 2035.

The Santa Clara Valley Transportation Authority (VTA) provides bus services within Santa Clara County. Three local bus routes operate in the project vicinity: route 57, 58 and 304. Route 57 operates between the Santa Clara Convention Center and West Valley Community College Transit Center with a stop .45-mile west of the project site on Bowers Avenue. Route 58 operate between the Alum-Rock Santa Teresa Light Rail Station and the West Valley Community College Transit Center with a stop .45-mile west of the project site on Bowers Avenue. Route 304 operates between the Sunnyvale Transit Center and the Santa Teresa LRT Station with two stops near the project site. One stop is 0.3-mile north east of the project site on Scott Boulevard and Bowers and the other is .57-mile northwest of the project site on Scott Boulevard and San Tomas Expressway.

a) Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less than Significant. Several intersections within the project vicinity are listed in the 2017 Congestion Management Plan (CMP) Monitoring and Conformance Report published by VTA.[34] Such intersections include San Tomas Expressway/Monroe Street and Central Expressway/Scott Boulevard. These intersections both currently operate at an acceptable LOS of E or better.

According to the Institute of Transportation Engineers (ITE), data centers feature among the lowest trip generation rates at 0.99 trips daily per every 1,000 square feet.[35] Using the ITE rate, the project would produce an estimated 248 total daily trips. The rate has not been discounted to factor in pass-by trips or mode split such as biking or transit. Based on the number of employees required for the project (18), the 248 trips are likely an overestimate of actual trips that would go to and from the project site. However, this number is used to present an analysis that factors in a reasonable worst-case scenario using established rates for data centers.

[34] VTA. 2016. *2016 CMP Monitoring and Conformance Report.* Accessed: December 2019.
[35] Institute of Transportation Engineers. 2012. *Trip Generation Manual: 9th Edition*. Accessed: December 2019.

The existing 54,000 square foot light industrial use at the project site is estimated to generate approximately 268 trips per weekday based on the ITE trip generation factor for this use: 4.96 trips per 1,000 square feet. Thus, the project would result in a net decrease in trips on local roadways as compared to existing land use.

The generation of 248 daily trips would be consistent with the local zoning (PD) which allows for data center uses, and the amount of traffic generated by the project can reasonably be accommodated on the existing roadway system based on existing and future LOS forecasts. Therefore, the project would not conflict with any applicable plan, ordinance or policy establishing measures of effectiveness for performance of the circulation system.

The City's Climate Action Plan (CAP) requires a Transportation Demand Management (TDM) Plan for selected land uses in various regions of the City. The General Plan land use designation for the Project site is Light Industrial, and there is currently no CAP requirement for a TDM Plan for light industrial uses. Given the very low number of employees anticipated for the data center, there is no TDM Plan proposed for the project.

b) Would the project conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?

The project site is located less than 0.5 miles from several transit stops, as described above. Based on CEQA Guidelines Section 15064.3(b)(1), land use projects within 0.5 miles of a transit stop along an existing high-quality transit corridor should be presumed to cause a less than significant transportation impact.

On June 23, 2020, the Santa Clara City Council adopted a resolution establishing a new Transportation Analysis Policy to address Senate Bill 743, transitioning CEQA significance thresholds away from level of service to VMT. The City's Transportation Analysis Policy echoes CEQA Guidelines Section 15064.3(b)(1) in setting criteria to exempt projects from a quantitative VMT analysis. Because the project site is within 0.5 miles of a transit stop along a high-quality transit corridor, it is exempt under the City's policy. Therefore, the project would not conflict with CEQA Guidelines section 15064.3, and the project's impact on transportation is considered to be less than significant. No mitigation is required.

c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. The project does not include any changes to local streets, intersections, or involve incompatible land uses. Access to the project site would continue to be provided via curb cuts on Stender Way. There would be no reconfiguring of nearby by streets such as Central Parkway or Coronado Drive. As such, the project would not introduce or increase hazards to design features. No impact would occur.

d) Would the project result in inadequate emergency access?

No Impact. Emergency access to the project site would continue to be provided by existing roadways. Emergency access would be provided via curb cuts on Stender Way. As a condition of approval, the project would be required to comply with all emergency access standards of the Santa Clara Fire Department and Police Department. Therefore, the project would not result in inadequate emergency access. No impact would occur.

2.18 Tribal Cultural Resources

	Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project: a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)	☐	☒	☐	☐
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

Discussion

Information in this section was incorporated from a Sacred Lands File search and a CHRIS records search, which were completed for the project site in December 2019 and January 2020.

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

> **i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)**

OR

> **ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.**

Less than Significant with Mitigation. As stated above in **Section 2.5, Cultural Resources,** there are no known archeological or built historic resources on the project site, and the likelihood to encounter archeological or other buried cultural resources is moderately low.

A Sacred Lands File search was requested on December 6, 2019. The Sacred Lands File, operated by the Native American Heritage Commission (NAHC), is a confidential set of records containing places of religious or social significance to Native Americans. A response from the NAHC was received on December 12, 2019 and indicated that Native American cultural sites have not previously been identified on the project site. The NAHC recommended consultation with six tribes associated with the region. On July 6, 2020, the City sent email notifications to the following Native American tribes: Amah Mutsun Tribal Band, Amah Mutsun Tribal Band of Mission San Juan Bautista, Indian Canyon Mutsun Band of Costanoan, Muwekma Ohlone Indian Tribe of the SF Bay Area, North Valley Yokuts Tribe,and the Ohlone Indian Tribe. The emails were followed with letters mailed to each Tribe on July 9, 2020. The emails and letters contained information about the project; an inquiry for any unrecorded Native American cultural resources or other areas of concern within or adjacent to the project site; and a solicitation of comments, questions, or concerns with regard the project. To date, no responses have been received. The tribes that were identified and contacted by the City will be given notice of the availability of this Draft IS/MND to ensure that they have the opportunity to comment on the project during the public circulation period.

In accordance with Section 21080.3.1 of the California Public Resources Code and AB 52, the City has provided a Notice of Opportunity to Native American tribes to request consultation for projects within the city. To date, the City has not received any requests from regional tribes to be included on the AB 52 list.

In addition to tribal consultation should it be requested, implementation of **Mitigation Measure CUL-1 and CUL-2** would ensure any previously unidentified Native American archeological resources or remains encountered during construction are handled appropriately. With implementation of these mitigation measures, impacts to tribal cultural resources would be less than significant.

2.19 Utilities and Service Systems

	Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

Discussion

Potable Water

The City provides water service through their Department of Water and Sewer Utilities and would serve the project site. The City's water and utilities system consists of approximately 335 miles of water mains,

7 storage tanks, and 26 wells that tap the underground aquifers and make up 62 percent of the City's water supply.[36] The City's water system produces and average of 15.7 million gallons per day, and has 28.8 million gallons of water storage capacity.[37] The remainder of the City's potable water supply is purchased from two wholesale water agencies: Valley Water and the San Francisco Hetch Hetchy System. Sixteen percent of the City's water use is composed of recycled water, discussed below. Existing utility connections on site include domestic water, electrical, gas, and sewage pipelines on Stender Way.

Recycled Water

Recycled water within the City is supplied from the jointly owned San Jose-Santa Clara Regional Wastewater Facility (RWF). Recycled water from the plant is delivered to the City through a system of water pipelines totaling 33 miles.[38] The City utilizes recycled water in order to offset and conserve use of potable water citywide. Recycled water is primarily used for irrigation within the City, however, several industries use recycled water in industrial processes, cooling towers, or for flushing toilets in dual plumbed buildings.[39]

Wastewater

Wastewater from the City is collected and treated at the RWF. The RWF provides primary, secondary, and tertiary treatment of wastewater and has capacity to treat 167 million gallons per day, with an average of 110 million gallons per day.[40]

The City owns and operates the wastewater collection system within the City. According to the City's Urban Water Management Plan, the system includes over 270 miles of sewer mains and 7 pump stations to convey an average of 15 million gallons per day of wastewater to the RWF, located just north of Highway 237 in San Jose.

Solid Waste

According to the City's General Plan EIR, solid waste collection services are provided by Mission Trail Waste Systems through a contract with the City. Mission Trail Waste Systems also has a contract to implement the Clean Green portion of the City's recycling plan by collecting yard waste. The City has an arrangement with the owners of the Newby Island Landfill, located in San Jose, to provide disposal

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[36] City of Santa Clara Water & Sewer Utility. Available: https://www.santaclaraca.gov/our-city/departments-g-z/water-sewer-utilities/water-utility. Accessed: December 2019.
[37] City of Santa Clara Water & Sewer Utility. Fact Sheet. Available: https://www.santaclaraca.gov/our-city/departments-g-z/water-sewer-utilities/fact-sheet. Accessed: December 2019.
[38] City of Santa Clara Water & Sewer Utilities. Recycled Water Utility. https://www.santaclaraca.gov/our-city/departments-g-z/water-sewer-utilities/recycled-water-utility. Accessed: December 2019.
[39] City of Santa Clara Water and Sewer Utilities. 2015. *Urban Water Management Plan*. http://santaclaraca.gov/home/showdocument?id=48088. Accessed: December 2019.
[40] City of San Jose. *San Jose-Santa Clara Regional Wastewater Facility Fact Sheet*. https://www.sanjoseca.gov/home/showdocument?id=32061. Accessed: December 2019.

capacity for the City. The Newby Island Landfill is currently permitted to operate until 2041. Recycling services are provided through Stevens Creek Disposal and Recycling.

Natural Gas and Electricity Services

Electric and gas services within the City are provided by SVP and Pacific Gas and Electric (PG&E), respectively. SVP owns more than 510-MW of electric-generating resources supplemented by purchase agreement for 261-MW of additional capacity for a total capacity of 771-MW. This capacity far exceeds the City's current peak electricity demand of approximately 526-MW. No new generation peak capacity is necessary to meet the capacity requirements of new construction.

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

Less than Significant. The project would include nine modular chiller plants located in the chiller yard adjacent to the SV9 data center. Adiabatic fluid coolers would be installed on the roof of the data center. Each 1,575-ton chiller would be supported by five adiabatic fluid coolers, for a total of 45 adiabatic fluid chillers. The adiabatic fluid coolers require minimal make-up water and would collectively use approximately 18 acre-feet annually, or 5,865,325 gallons. This volume is less than the current demand at the project site. Therefore, the project would not require new or expanded water facilities.

The project site is currently served by the RWF. The anticipated wastewater generated per employee is 20 gallons per person per 8 hours in a work day. It is anticipated that up to 8 employees would work during daytime work hours and up to 5 employees per shift would work in the building in the evening and overnight, for a total of up to 18 employees every 24 hours. Therefore, wastewater generated by employees is estimated to be approximately 360 gallons per day. Based on the current use of the site as office suites, it is anticipated that the number of employees onsite would decrease with project implementation. This would result in a reduction in wastewater generated. Therefore, the project would not require new or expanded wastewater facilities.

The project would include alterations to the project site to provide proper drainage. As discussed in **Section 2.10, Hydrology and Water Quality**, permitting requirements would ensure the project does not result in a net increase in stormwater leaving the site. Onsite stormwater design is included in this analysis, and no offsite stormwater infrastructure improvements or changes would be needed. Therefore, the project would not require new or expanded stormwater facilities, other than those analyzed in this Initial Study.

The project would be served by SVP, which has adequate capacity for the project.[41] The project includes construction of a new substation onsite, the environmental effects of which are analyzed in this Initial Study. No new or expanded offsite SVP facilities would be required to serve the project.

The existing natural gas and telecommunications facilities available onsite would be adequate to serve the project, and no offsite changes to gas or telecommunications facilities would be required. Based on the above, this impact would be less than significant, and no mitigation is required.

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

Less than Significant. The City's Water and Sewer Utilities system currently serves the project site. The project would require potable water for restrooms, the break area, and to run the cooling system. As previously discussed in **Section 2.10, Hydrology and Water Quality** and in the Valley Water Groundwater Management Plan, the City has sufficient potable water supplies to service the project. Compared to existing conditions, implementation of the project is anticipated to result in a net reduction in water use at the site. Therefore, there would be no need to develop additional resources or entitlements to serve the project. There would be a less-than-significant impact. No mitigation is required.

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

Less than Significant. As stated above, the RWF has available capacity to serve the project (see discussion for **questions 2.19** "**a**" and "**b**"). Compared to existing conditions, the project is anticipated to result in an overall reduction in wastewater generation. Therefore, the project would not require the construction of new water or wastewater treatment facilities, and any impacts would be less than significant. No mitigation is required.

d) Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less than Significant. Construction activities such as demolition, utility trenching, and foundation excavation would generate construction debris and excavated materials on site. Where feasible, such material would be used on site or recycled to reduce impacts on local and regional landfills. Material that cannot feasibly be used on site or recycled would be off-hauled by trucks to the Newby Island Sanitary Landfill. Before export, soils would be tested to determine if disposal at a hazardous materials facility is required, as discussed in **Section 2.9, Hazards and Hazardous Materials**.

[41] Silicon Valley Power, Will-Serve Letter dated August 7, 2019

Once operational, solid waste generated by the project would be disposed at the Newby Island Sanitary Landfill, which is contracted to provide disposal capacity for the City and has a closing date of 2041. The landfill currently has approximately 37 percent of its maximum capacity available.[42] It is assumed that the amount of solid waste generated by the project would be minimal, as there would be a maximum of 18 employees daily. Further, the project is anticipated to reduce the number of employees working onsite compared to existing conditions. Therefore, the project would not result in an increase of solid waste at the Landfill that would exceed its capacity. Furthermore, the project would adhere to the City's recycling and waste reduction programs. Given this, the project would be served by a landfill with sufficient capacity to service to the project. There would be a less-than-significant impact. No mitigation is required.

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

Less than Significant. Assembly Bill 939 (AB 939) relates to solid waste diversion requirements for the State of California. In 1995, all jurisdictions in California were required by AB 939 to divert 25 percent of waste generation from landfill. By the year 2000, all California Jurisdictions were required to divert 50 percent of waste generation from landfills. The Solid Waste Disposal Measurement System Act, California Senate Bill 1016 (SB 1016), was passed in 2008 and required the AB 939 50 percent diversion requirement to be calculated in a per capita disposal rate equivalent.

In the year 2010, the City reported an annual per capita disposal rate of 7 pounds per day (PPD) per employee, surpassing the Per Employee Disposal Target Rate of 9 PPD set for the City by the California Department of Resources Recycling and Recovery (CalRecycle). It is assumed that the amount of solid waste generated by the 18 daily employees would be minimal and would result in an overall reduction in solid waste compared to existing conditions. Therefore, the project would not result in a net increase of solid waste in the City that would jeopardize the City's consistency with AB 939 and SB 1016. Given this, the project would have a less-than-significant impact. No mitigation is required.

[42] California Department of Resources Recycling and Recovery (CalRecycle). Solid Waste Information System, Newby Island Sanitary Landfill. https://www2.calrecycle.ca.gov/swfacilities/Directory/43-AN-0003. Accessed: December 2019.

2.20 Wildfire

	Significant Impact	Less than Significant with Mitigation	Less-than-Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

Discussion

The project site is located in a developed urbanized area just south of the San Tomas Expressway and Highway 101 intersection. The project sire is developed with an existing one-story multi-use office space, parking lot and landscaping along Stender Way. The California Department of Forestry and Fire Protection identifies fire hazards based on relevant factors such as fuels, terrain, and weather. There are no Fire Hazard Severity Zones (FHSZ) within the urbanized portion of Santa Clara County that are ranked with moderate to high fire susceptibility. The project site is and the majority of the City is not located within a Very High Fire Hazard Severity Zone (VHFHSZ).

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

OR

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

OR

c) **Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?**

OR

d) **Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?**

Less than Significant. As mentioned above in **Section 2.15, Public Services,** there are no formal evacuation routes or emergency response plans near the project site that would be impacted by the project. The project site and surrounding area are relatively flat and developed with urban uses, preclude factors such as slopes or strong winds from exacerbating wildlife risk. Similarly, post-fire impacts such as drainage changes and landslides would not occur as the project site and its surroundings are highly urbanized and flat and do not have any steep slopes or hillsides that would be susceptible to landslides or flooding. The project is located on an existing developed site and would not require the installation or maintenance of infrastructure that may exacerbate fire risk. Further, the project site is not located within a FHSZ.[43] This impact would be less than significant.

[43] Santa Clara County, Fire Hazard Severity Zones on SRA. Adopted by CAL FIRE November 7, 2007. Available: https://osfm.fire.ca.gov/media/7271/fhszs_map1.pdf. Accessed: December 2019.

2.21 Mandatory Findings of Significance

	Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Does the project:				
a) Have the potential to degrade quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Discussion

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less than Significant with Mitigation. As described in **Section 2.4, Biological Resources, Section 2.5, Cultural Resources**, and **Section 2.18, Tribal Cultural Resources**, the project includes mitigation measures to reduce potential impacts to wildlife and cultural resources. Implementation of

mitigation measures described in this Initial Study would reduce all potentially significant impacts of the project to a less-than-significant level.

b) Does the project have impacts that are individually limited, but cumulative considerable? ("Cumulative considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Less than Significant with Mitigation. Cumulative impact analysis determines whether an individual project in combination with other approved or foreseeable projects would result in significant impacts. If cumulative impacts could occur, cumulative analysis asks whether the project's contribution to the significant cumulative impact would be cumulatively considerable.

The analysis of cumulative impacts for each environmental factor can employ one of two methods to establish the effects of other past, current, and probable future projects. A lead agency may select a list of projects, including those outside the control of the agency, or, alternatively, a summary of projections. These projections may be from an adopted general plan or related planning document, or from a prior environmental document that has been adopted or certified, and these documents may describe or evaluate the regional or area-wide conditions contributing to the cumulative impact.

This Initial Study evaluates cumulative impacts using the City's General Plan Integrated Environmental Impact Report (EIR) (2011). The General Plan Integrated EIR evaluated future development, as identified in the current General Plan, and concluded that the following significant environmental impacts would occur.

- Exacerbation of land use impacts arising from the jobs –housing imbalance;
- Degradation of traffic operations on regional roadways and highways within the City of an unacceptable level of service;
- Contribution to solid waste generation beyond available capacity after 2024;
- Contribution to GHG emission exceeding the City's emission reduction target for 2035; and
- Increase in localized traffic noise level on roadway segments throughout the City.

Transportation

As described in **Section 2.17, Transportation**, traffic operations would decrease compared to existing uses. The General Plan Integrated EIR states that despite the General Plan's overall land use-transportation efficiency, future development would nonetheless generate substantial additional traffic volumes that would cause congestion along certain roadway segments within the City's jurisdiction for which, in most cases, no feasible mitigation (i.e. ability to add new travel lanes) exists. However, the project would result in a net decrease in trips on local roadways as compared to existing land use. Therefore, the project's contribution to this significant impact would not be cumulatively considerable.

Population and Housing

The General Plan Integrated EIR identified significant cumulative land use impacts from the build-out of the General Plan land use designations, in conjunction with other regional development. The EIR concluded that the proposed land uses would create a regional jobs-housing imbalance, as workers who are unable to live near their employment would commute long distances from outlying areas. As described in **Section 2.14, Population and Housing**, the project would not result in a substantial increase in employment. Therefore, the project's contribution to this significant impact would not be cumulatively considerable.

Utilities and Service Systems

As previously discussed in **Section 2.19, Utilities and Service Systems**, the project would not result in a significant increase in solid waste generation. Although the General Plan Integrated EIR identified solid waste generation as a significant impact, the amount of solid waste generated by the project operations would be minimal, as data centers typically require very little equipment turnover, and there would be a maximum of 18 employees every 24 hours. Therefore, the project's contribution to this significant cumulative impact would not be cumulatively considerable. Further, the Newby Island Landfill was permitted to operate until 2041 after the General Plan Integrated EIR was certified (the General Plan EIR assumed a 2024 closure date), making this impact potentially moot.

Greenhouse Gas Emissions

As previously discussed in **Section 2.8, Greenhouse Gas Emissions**, the project's GHG emissions would be consistent with applicable plans, policies and regulations. Therefore, the project's contribution to this significant cumulative impact would not be cumulatively considerable.

Noise and Vibration

As previously discussed in **Section 2.13, Noise and Vibration**, with implementation of **Mitigation Measures NOI-1, NOI-2**, **and NOI-3** the project would not exceed applicable noise level standards for the project site. Although the General Plan Integrated EIR identified a significant impact related to the localized noise increase in traffic noise level on roadway segments, the project would not result in a net increase in traffic on surrounding roadways and highways and would not contribute to an increase in traffic noise levels. Therefore, the project would not contribute to this significant cumulative impact.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less than Significant with Mitigation. As previously discussed throughout this Initial Study, the project would not result in significant environmental impacts on human beings with implementation of mitigation measures. Mitigation measures are identified in this Initial Study to reduce potential

significant impacts related to air quality impacts, hazards, and noise which could otherwise effect humans. Implementation of these mitigation measures would ensure that the project would not result in impacts that would cause significant impacts on human beings, either directly or indirectly.

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