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communities. To protect the climate, the plan defines a vision for transitioning the region to a post-carbon economy needed to achieve ambitious GHG emissions reduction targets for 2030 and 2050 and provides a regional climate protection strategy that will put the Bay Area on a pathway to achieving those GHG emissions reduction targets.

BAAQMD CEQA Guidelines. The purpose of the BAAQMD CEQA Guidelines is to assist lead agencies in evaluating a project's impacts on air quality (BAAQMD 2017b). This document describes the criteria that BAAQMD uses when reviewing and commenting on the adequacy of environmental documents. It recommends thresholds of significance for determining whether a project would have significant adverse environmental impacts, identifies methodologies for predicting project emissions and impacts, and identifies measures that can be used to avoid or reduce air quality impacts. The BAAQMD CEQA Guidelines include methodologies for estimating GHG emissions. In the comment letter on the Notice of Preparation for this EIR, BAAQMD indicated that the current recommended GHG thresholds in the BAAQMD 2017 CEQA Guidelines are based on the statewide 2020 GHG targets, which are now superseded by the statewide 2030 GHG targets established in Health and Safety Code, section 38566. BAAQMD recommends that the GHG analysis should evaluate the consistency of the project with California's 2030, 2045 and 2050 climate goals (BAAQMD 2021b). BAAQMD staff is in the process of preparing and presenting to the BAAQMD board for approval an update to the CEQA GHG threshold for stationary sources from the current value of 10,000 $MTCO_2e$/yr to 2,000 $MTCO_2e$/yr or compliance with CARB's cap-and-trade program. The current planned BAAQMD board adoption date for the proposed changes in the CEQA Guidelines GHG significance thresholds is February or March 2022 (BAAQMD 2021).

Diesel Free by '33. In 2018, BAAQMD established a program intended to reduce GHG and criteria pollutant emissions by eliminating petroleum use by the end of 2033. Local Bay Area agencies are encouraged to voluntarily adopt the Statement of Purpose of this initiative. Entities signing the Statement of Purpose pledge to develop their own individual strategies to achieve the goal of reaching zero diesel emissions in their communities. Signatories to this agreement express their intent to:

1. Collaborate and coordinate on ordinances, policies, and procurement practices that will reduce diesel emissions to zero within their jurisdictions, communities, or companies;

2. Share and promote effective financing mechanisms domestically and internationally to the extent feasible that allow for the purchase of zero emissions equipment;

3. Share information and assessments regarding zero emissions technology;

4. Build capacity for action and technology adaptation through technology transfer and sharing expertise;

5. Use policies and incentives that assist the private sector as it moves to diesel-free fleets and buildings; and

6. Periodic reporting to all signers of progress towards the zero- diesel emissions goal.

Plan Bay Area 2040. Under the requirements of Senate Bill 375 (Chapter 728, Statutes of 2008), all metropolitan regions in California must complete a Sustainable Communities Strategy (SCS) as part of their Regional Transportation Plan. In the Bay Area, the Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG) are jointly responsible for developing and adopting an SCS that integrates transportation, land use, and housing to meet GHG emissions reduction targets set by CARB. In July 2017, the MTC and ABAG approved Plan Bay Area 2040, which is a strategic update to the previous plan approved in July 2013. The Bay Area GHG emissions reduction targets established by CARB in September 2010 include a seven percent reduction in GHG emissions per capita from passenger vehicles by 2020 compared to 2005 emissions. Similarly, Plan Bay Area 2040 includes a target to reduce GHG emissions per capita from passenger vehicles 15 percent by 2035 compared to 2005 emissions (MTC & ABAG 2017).

Local

City of Santa Clara 2010-2035 General Plan. The City of Santa Clara 2010-2035 General Plan (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 Appendix 8.13: Sustainability Goals and Policies Matrix in the General Plan 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.

City of Santa Clara Climate Action Plan. The city has a comprehensive GHG emissions reduction strategy, referred to as the city's Climate Action Plan (CAP, Santa Clara 2013). The 2013 CAP identified the city's approach to achieve its share of statewide emissions reductions for the 2020 timeframe established by Health and Safety Code, section 38550. The original CAP, adopted on December 3, 2013, specified the strategies and measures to be taken for a number of focus areas city-wide to achieve the overall emissions reduction target. The 2013 CAP also includes an adaptive management process that can incorporate new technology and respond when goals are not being met.

A key reduction measure undertaken by the city under the CAP is in the Coal-Free and Large Renewables focus area. SVP, the city's municipal electricity utility, provides electricity for the city, including the project site. Since nearly half (48 percent) of the city's GHG emissions are from electricity use, reducing GHG-intensive electricity generation (such as coal) is a major focus area in the CAP (Santa Clara 2013). SVP reduced coal generation in 2017 by divesting its interest in San Juan Generating Station located in New Mexico effective January 1, 2018 (Santa Clara 2018).

The CAP also includes measures to improve energy efficiency. Measure 2.3 in this focus area calls for 10 percent of new data centers to incorporate energy efficient practices. All new data centers since 2013 have utilized energy efficient cooling practices, exceeding this goal (Santa Clara 2018).

In 2016 the city produced its first Annual Report on the CAP. It reviewed its 2013 CAP again in the summer of 2018 (Santa Clara 2018), stating that the 2013 CAP "meets the criteria for a Qualified GHG Reduction Strategy" as established by the CEQA guidelines. As such, the CAP can be used to streamline the environmental review process for new development. However, to remain a Qualified GHG Reduction Strategy, the city must monitor and update the CAP. In the updated 2018 Annual Report, the city stated that it has been successful in achieving a 4.5 percent reduction in GHG emissions relative to their 2008 baseline, which is equivalent to the city's 1990 emissions. The 2018 Annual Report indicated the city was on track to reduce the city's emissions to 15 percent below their baseline amount by 2020. It also stated that the CAP includes three "reach measures" to reduce GHG emissions 55 percent below the city's 1990 GHG emissions by the year 2035, to meet post-2020 GHG reduction goals. These reach goals call for a more aggressive implementation of CAP strategies for the 2020 time-frame (Santa Clara 2013).

In 2016, SVP was the largest source of GHG emissions in the city's GHG emissions inventory, with 97 percent of all GHG sources attributed to the city.

The city of Santa Clara has prepared a draft CAP Update, which is tentatively planned to be adopted in early 2022 (Santa Clara 2021, CEC 2021x). The draft 2022 CAP Update reflects the 2030 GHG emissions limit requirements and progress toward meeting the long-term targets of Executive Order B-55-18. In addition to these targets, the city aspires to reduce emissions more aggressively in the near-term: achieve an 80 percent reduction in per-service population emissions by 2035. The draft 2022 CAP Update identifies strategies and actions in these main areas: building and energy, transportation and land use, materials and consumption, natural systems and water resources, and community resilience and well-being. To achieve the interim target of an 80 percent reduction in per-service population emissions by 2035, the city will take additional actions including achieve 100 percent carbon neutral electricity by 2035 and require all new construction to be all-electric (with minor exemptions). Actions specifically related to data centers for achieving GHG emissions reductions include:

- B-1-7, Carbon neutral data centers:
  Require all new data centers to operate on 100% carbon neutral energy, with offsets as needed. This requirement does not apply to data centers with planning application approval within six months of the CAP adoption date (CEC 2021x).
- B-3-6, Alternative fuel backup generators:
  Provide information and technical assistance to data centers and other large commercial users to transition from diesel to lower-carbon backup generators (e.g., renewable diesel).
- B-3-7, Renewable electricity for new data centers:
  Support convening of a data center working group to identify and implement renewable electricity purchasing options for commercial customers.

The CEQA Guidelines allow a lead agency to use a Qualified GHG Reduction Strategy to determine the degree to which a proposed project would cause a significant adverse impact. Compliance with appropriate measures in the CAP would ensure an individual project is not cumulatively significant under CEQA.

Silicon Valley Power's Integrated Resource Plan and Other Programs. The city of Santa Clara adopted an Integrated Resource Plan (IRP) for SVP dated November 12, 2018 (SVP 2018). The IRP was developed as required by SB 350 and must be updated at least every five years. The IRPs provide a framework to evaluate how utilities have chosen to align with greenhouse gas emissions reduction targets as well as energy and other policy goals outlined in SB 350. The most challenging goals in the IRP call for the city to: (1) increase procurement of energy from renewable electricity sources to 60 percent by 2030, and (2) double energy efficiency savings in electricity and natural gas end uses by 2030.

Staff in the Supply Analysis Office of the Energy Assessments Division have reviewed SVP's 2018 IRP (CEC 2019) and found that, among other things, by the year 2030 SVP: (1) achieves a 40 percent GHG emissions reduction from 1990 levels, and (2) meets the RPS goals of SB 350 to use 50 percent renewables.

In addition to carrying out activities related to their IRP, SVP has also recently created a Large Customer Renewable Energy (LCRE) program to allow its large customers to sign up for 100 percent renewable energy. In November 2021, the city approved SVP's LCRE program, which became effective January 1, 2022 (SVP 2021b). The program is a voluntary green program for large customers to purchase additional renewable energy above the amount of renewable energy already included in SVP's energy delivery portfolio to accelerate customers' higher corporate renewable and sustainability goals. Customers have two options to participate in the program: (1) SVP procures supplemental renewable energy for customers for a one-year term, and (2) customer provides their own supplemental renewable energy resource under a five-year or 10-year term customer agreement with SVP. The program is available for the project applicant to use.

Existing Conditions

California is a substantial contributor to global GHG emissions. The total gross California GHG emissions in 2019 were 418.2 $MMTCO_2e$ (CARB 2021). The largest category of GHG emissions in California is transportation, followed by industrial activities and electricity generation in state and out of state (CARB 2021). In 2019, total gross U.S. greenhouse gas emissions were 6,558 $MMTCO_2e$, or 5,769 $MMTCO_2e$ after accounting for sequestration from the land sector (U.S. EPA 2021).

The city prepares an annual report to assess progress towards meeting the GHG emissions reduction targets established in the 2013 CAP and recommend next steps to help the city meet its targets. The city tracks changes in communitywide GHG emissions since 2008, which is the city's jurisdictional baseline year for the GHG emissions inventory. The CAP 2018 Annual Report provides the city's GHG emissions inventory in 2016, which

is the most recent GHG emissions inventory for the city. **Table 4.8-1** presents the city's 2016 GHG emissions inventory (Santa Clara 2018).

TABLE 4.8-1 CITY OF SANTA CLARA 2016 GHG EMISSIONS INVENTORY

Sector	Carbon dioxide equivalent emissions ($MTCO_2e$)
Commercial Energy	1,080,261
Residential Energy	132,912
Transportation & Mobile Sources	505,989
Solid Waste	25,724
Water & Wastewater	24,292
Total Emissions	1,769,178

Source: Santa Clara 2018.

As stated in their 2018 IRP (SVP 2018), SVP follows the state's preferred loading order in procuring new energy resources. First, the current load (customer) is encouraged to participate in energy efficiency programs to reduce their usage, thus freeing up existing resources (and any related emissions) for new load (electricity demand). In addition, both the city and SVP encourage the use of renewable resources and clean distributed generation, and the local area has seen a significant increase in the use of large and small rooftop photovoltaics. Demand displaced by customer-based renewable projects is also available to meet new loads.

SVP seeks to meet its RPS milestones through the addition of new renewable resources. In January 2018, SVP began providing 100 percent carbon-free power to all residential customers. This is reflected in the Power Content Label through separate products for the residential and non-residential mix (SVP 2021a). A comparison of SVP's and the statewide power mix for 2020 is shown in **Table 4.8-2**. SVP is in various stages of clean energy procurement for the future, negotiating contracts for over 700 Megawatts of energy, totaling over 2,200,000 MWh annually. This is equivalent to powering 366,000 homes. These resources will be constructed and brought online over the next five years (SVP 2021a). As with all load serving entities in California, the carbon intensity factor will continue to change as the power mix gradually increases the use of renewable resources to achieve California's GHG and renewable energy goals.

TABLE 4.8-2 COMPARISON OF SVP AND STATEWIDE POWER MIX – 2020

Energy Resources	Santa Clara Residential Mix	Santa Clara Non-Residential Mix	Santa Clara Green Power Standard Mix	Santa Clara Green Power National Mix	2020 CA Power Mix
Eligible Renewable	**40.2%**	**31.7%**	**100%**	**26.0%**	**33.1%**
Biomass & Biowaste	0%	2.6%	0%	0.5%	2.5%
Geothermal	0%	8.1%	0%	5.2%	4.9%
Eligible Hydroelectric	0%	8.8%	0%	6.4%	1.4%

TABLE 4.8-2 COMPARISON OF SVP AND STATEWIDE POWER MIX – 2020

Energy Resources	Santa Clara Residential Mix	Santa Clara Non-Residential Mix	Santa Clara Green Power Standard Mix	Santa Clara Green Power National Mix	2020 CA Power Mix
Solar	11.1%	0%	100%	0%	13.2%
Wind	29.1%	12.2%	0%	13.9%	11.1%
Coal	**0%**	**0%**	**0%**	**0%**	**2.7%**
Large Hydroelectric	**59.8%**	**12.2%**	**0%**	**13.5%**	**12.2%**
Natural Gas	**0%**	**18.4%**	**0%**	**36.9%**	**37.1%**
Nuclear	**0%**	**0%**	**0%**	**0%**	**9.3%**
Other	**0%**	**0%**	**0%**	**0%**	**0.2%**
Unspecified sources of power	**0%**	**37.6%**	**0%**	**23.7%**	**5.4%**
TOTAL	**100%**	**100%**	**100%**	**100%**	**100%**

Source: SVP 2021a

4.8.3 Environmental Impacts

Methodology

The applicant estimated GHG emissions for demolition/construction from the demolition/construction equipment, vendor and hauling truck trips, and worker vehicle trips.

GHG emissions from the project operation are a result of diesel fuel combustion from the readiness testing and maintenance of the emergency backup generators, offsite vehicle trips for worker commutes and material deliveries, and facility upkeep (such as architectural coatings, consumer product use, landscaping, water use, waste generation, natural gas use for comfort heating, and electricity use).

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

Construction

Less Than Significant Impact. Construction of the project would result in GHG emissions generated by the on-site operation of construction equipment, vendor and hauling truck trips, and worker trips. The applicant estimated that these sources would generate a total of approximately 974 $MTCO_2e$ during the estimated 22 months of construction and demolition (CEC 2022a).

Because construction emissions would cease once construction is complete, these emissions are considered short term. The BAAQMD CEQA Guidelines do not identify a GHG emissions threshold for construction-related emissions. Instead, BAAQMD recommends that GHG emissions from construction be quantified and disclosed. BAAQMD

further recommends the incorporation of BMPs to reduce GHG emissions during construction, as feasible and applicable. BMPs may include the use of alternative-fueled (for example, renewable diesel or electric) construction vehicles and equipment for at least 15 percent of the fleet, use of at least 10 percent of local building materials, and recycling or reusing at least 50 percent of construction waste (BAAQMD 2017b). The project would implement mitigation measure **AQ-1**, which would require, among other things, that the construction equipment be tuned and maintained in accordance with manufacturer's specifications and that construction equipment idling time be limited to five minutes to reduce GHG emissions from fuel consumed from unnecessary idling or the operation of poorly maintained equipment. The project would also participate in the city's Construction & Demolition Debris Recycling Program by recycling or diverting at least 65 percent of materials generated for discards by the project to reduce the amount of demolition and construction waste going to the landfill. The quantity of construction-related GHG emissions would be limited to the construction phase, which would ensure GHG impacts are less than significant.

The CAP Measure 5.2 calls for construction vehicles to use alternative fuels, such as electricity, biodiesel, or compressed natural gas, when possible. The CAP notes that the city can make the use of alternative fuels a condition of approval for new developments during pre-construction review meetings (Santa Clara 2013).

Operation and Maintenance

Less Than Significant with Mitigation Incorporated. GHG emissions from project operation and maintenance would consist of direct "stationary source" emissions from routine readiness testing and maintenance of the emergency backup generators and indirect and "non-stationary source" emissions from offsite vehicle trips for worker commutes and material deliveries, and facility upkeep, including architectural coatings, consumer product use, landscaping, water use, waste generation, natural gas use for comfort heating, and electricity use.

i. Direct Project Stationary Combustion Sources

Table 4.8-3 shows the maximum potential annual GHG emission estimates for the emergency backup generators routine readiness testing and maintenance. The emissions are estimated based on 35 hours of annual testing and maintenance at 100 percent load per engine.

Table 4.8-3 shows that the estimated average annual GHG emissions from the project's stationary sources, the emergency backup generators, for routine readiness testing and maintenance are well below the current BAAQMD CEQA Guidelines GHG emissions significance threshold of 10,000 $MTCO_2e/yr$ for stationary sources and would not exceed the threshold level for inclusion in CARB's cap-and-trade program, which is 25,000 $MTCO_2e/yr$. However, as mentioned above, BAAQMD staff is in the process of preparing and presenting to the BAAQMD board for approval an update to the CEQA GHG threshold for stationary sources from 10,000 $MTCO_2e/yr$ to 2,000 $MTCO_2e/yr$ or

compliance with CARB's cap-and-trade program. Therefore, staff proposes mitigation measure **GHG-1** to require the applicant to limit the GHG emissions of the emergency backup generators to the BAAQMD CEQA Guidelines GHG threshold applicable at the time of permitting. These emissions could be reduced further by using renewable diesel in place of petroleum-based diesel. Because of California's ambitious GHG emissions reduction goals, staff concludes it is imperative that all feasible methods of carbon reduction be employed to ensure the project GHG emissions are less than significant. Therefore, staff also proposes mitigation measure **GHG-2** to require the applicant to use an increasing mix of renewable diesel and phase out the use of ultra-low sulfur diesel. Staff analyzes the effectiveness of these approaches separately.

TABLE 4.8-3 GREENHOUSE GAS EMISSIONS FROM EMERGENCY BACKUP GENERATORS TESTING AND MAINTENANCE

Source	Maximum Annual Emissions ($MTCO_2e$/yr)
Emergency backup generators – Testing and Maintenance	3,387
Proposed Future BAAQMD Threshold	2,000
Exceeds Threshold?	Yes

Source: DayZenLLC 2021b, CEC staff analysis

1) **Limiting GHG Emissions.** The applicant estimated the GHG emissions of the emergency backup generators shown in **Table 4.8-3** are conservatively based on 35 hours of annual readiness testing and maintenance at 100 percent load per engine. Staff estimates that, if the applicant accepts a permit limit of 20 hours of annual readiness testing and maintenance per engine, the GHG emissions of the emergency backup generators would be about 1,935 $MTCO_2e$/yr, which would not exceed 2,000 $MTCO_2e$/yr. Since the monthly testing would occur at 0 percent load for up to 15 minutes and annual testing would only be conducted once per year at a series of stepped loads up to 100 percent load (DayZenLLC 2021t), staff expects the applicant would be able to accept a permit limit of 20 hours of annual testing and maintenance per engine to lower the GHG emissions to 2,000 $MTCO_2e$/yr, if it is applicable at the time of permitting.

2) **Using Renewable Diesel.** The applicant could also reduce the GHG emissions of the emergency backup generators by replacing the ultra-low sulfur petroleum-based diesel with renewable diesel. BAAQMD indicates that biogenic CO_2 emissions would not be included in the quantification of GHG emissions for characterizing the CEQA impact significance for a project (BAAQMD2017b, page 4-5). Accordingly, if the project can substitute the proposed use of ultra-low sulfur petroleum-based diesel with a renewable non-petroleum resource, the portion of the project's GHG emissions from the biogenic resources would be exempt from the stationary source threshold.

   As shown in **Table D-1** in **Appendix D**, renewable diesel used in place of ultra-low sulfur petroleum-based diesel can reduce CO_2 tailpipe emissions approximately 3 to 4 percent. However, renewable diesel is produced with a fuel-cycle that is a far lower carbon intensity (CI) than ultra-low sulfur petroleum-based diesel. In staff's

independent analysis, staff compared fuel-cycle GHG emissions from using renewable diesel and petroleum-based diesel. Based on data from CARB's Low-Carbon Fuel Standard regulations (17 CCR §§95480 to 95503), staff computed that the fuel-cycle GHG emissions of the emergency backup generators would decrease from 3,387 $MTCO_2e$/yr using petroleum diesel to 1,107 $MTCO_2e$/yr with renewable diesel.

As discussed in **Section 5 Alternatives**, renewable diesel is expected to become more widely available in the future when more suppliers come online and fuel-cycle GHG emissions would be reduced using renewable diesel. As explained in detail under environmental checklist criterion "b," staff recommends mitigation measure **GHG-2** to require the project to use an increasing mix of renewable diesel. With **GHG-2**, the project's GHG emissions from stationary sources would be further reduced.

With the implementation of **GHG-1** and **GHG-2**, the environmental impact of GHG emissions from the project's stationary sources would be reduced to a level that would not be significant.

ii. Indirect and Non-Stationary Sources Emissions

Maximum GHG emissions from indirect and non-stationary sources (i.e. energy use, mobile sources and building operation) are provided in **Table 4.8-4**.

Project Electricity Usage. Table 4.8-4 shows the indirect GHG emissions attributed to electricity use. The primary function of the project is to house computer servers, which require electricity and cooling 24 hours a day to operate. Annual GHG emissions associated with electricity usage are the product of the maximum estimated annual electricity usage and the utility-specific carbon intensity factor, which depends on the utility's portfolio of power generation sources. The projected maximum demand for the project is 96 MW but will be built in phases. The applicant estimated energy use from the project activities for Phase 1 to be 473,040 MWh/year. After full build-out, staff estimates that the worst-case energy use from the project's activities would be up to 840,960 MWh/year (= 96 MW × 8,760 hours/year).

Electricity for the project would be provided by SVP. The applicant used carbon intensity factors from "SVP Email to City of Santa Clara on Carbon Intensity Factor" from the Sequoia Data Center Project proceeding (SVP 2019). For energy use emissions for the first phase of operations, the applicant used a carbon intensity value of 250 pounds CO_2 per MWh (lbs CO_2/MWh), which is the average value for 2023 and 2024 from SVP's email. For operation with full build-out, the applicant used a carbon intensity value of 277 lbs CO_2/MWh for 2025 from SVP's email. SVP's carbon intensity factor for electricity generation will continue to change as SVP's power mix continues to increase the percentage of electricity obtained from renewable resources. Since it is not clear whether the SVP carbon intensity values already include CH_4 or N_2O, the applicant conservatively used the CalEEMod default CH_4 and N_2O intensity factors of 0.029 and 0.006 lbs/MWh, respectively. **Table 4.8-4** shows the worst-case GHG emissions due to electricity use, which would be during full build-out operation. Even as SVP improves its fuel mix to meet

2030 and other GHG emissions reduction goals, the project would indirectly emit a significant amount of GHGs as a result of its energy needs. With the carbon intensity value of 219 lbs CO_2/MWh for 2030 from SVP's email, the worst-case GHG emissions due to electricity use would still be about 84,472 $MTCO_2e$/yr.

Project Mobile Emissions Sources. Table 4.8-4 shows the applicant's estimated annual GHG emissions from mobile emissions sources. The applicant relied on a project operational trip generation consistent with the transportation operation analysis memo. The transportation analysis states that the net project trip rate would be negative (-658 trips per day) based on an estimate of 1,125 trips per day from the existing land use and 467 trips per day from project operations. However, the applicant conservatively estimated the GHG emissions based on 467 trips per day for the project.

Project Water Consumption and Waste Generation. Table 4.8-4 shows the estimated annual GHG emissions from water consumption and waste generation. Water consumption results in indirect emissions from electricity usage for water conveyance and wastewater treatment. Daily operations at the project would also generate solid waste, which results in fugitive GHG emissions during waste decomposition at the landfill.

Refrigerant Use. The project would use refrigerants in forty-eight (48) air-cooled chillers with ambient free-cooling economizers located on roof dunnage. The refrigerant used in the air-cooled chillers proposed would be R-134a. The chiller manufacturer estimates a worst case (barring unpredictable catastrophes) of 1 percent annual refrigerant loss a year. Each chiller is charged with 811.4 lbs of R-134a (DayZenLLC 2021m). Staff estimated a total of 389 lbs of refrigerant would be lost in a year for all (48) of the chillers for the whole project. Since R-134a has a GWP of 1,430, the project would create about 253 $MTCO_2e$ into the atmosphere due to refrigerant loss.

Summary of Indirect and Non-stationary GHG Emissions. As shown in **Table 4.8-4**, operation of the project is estimated to generate 107,383 $MTCO_2e$/yr from maximum possible electricity use and other non-stationary sources. The majority of emissions would be from the energy use, which is estimated to be up to 106,596 $MTCO_2e$/yr. As described above, electricity to the project would be provided by SVP, a utility that is on track to meet their 2030 GHG emissions reductions target, as described in their CAP 2018 Annual Report and as verified by staff. Actual GHG emissions associated with electricity use at the project would be much less than 106,596 $MTCO_2e$/yr since actual electricity use will be less than the maximum and the SVP annual average emission factor will be tracking downward towards "zero net" with the implementation of state and local measures to reduce GHG emissions associated with electricity production and California's fuels. For example, programs to implement SB 350 and SB 100 would continue to promote renewable resources in the power mix and ensure ongoing substantial reductions in GHG emissions from electricity generation.

To reduce GHG emissions associated with the use of energy during building operations, the project proposes to implement a variety of energy efficiency measures: daylight penetration to offices, reflective roof surface, meet or exceed Title 24 building standards requirements, electric vehicle (EV) parking, low-flow plumbing fixtures, and landscaping would meet the city's requirements for low water use. The project would comply with all applicable city and state green building standards measures, including California Code of Regulations, Title 24, Part 6, baseline standard requirements for energy efficiency, based on the 2019 Energy Efficiency Standards requirements, and the 2019 California Green Building Standards Code, commonly referred to as CALGreen (California Code of Regulations, Title 24, Part 11).

TABLE 4.8-4. MAXIMUM GHG EMISSIONS FROM ENERGY USE, MOBILE SOURCES, AND BUILDING OPERATION DURING PROJECT OPERATION

Source	Annual Emissions ($MTCO_2e$/yr)
Energy Use [a]	106,596
Mobile Sources [b]	248
Landscaping	0.0102
Water Use	2
Waste Disposed	284
Cooling System R-134a Leakage [c]	253
Total	107,383

Sources: DayZenLLC 2021b, DayZenLLC 2021m, CEC staff analysis.
Notes:
[a] Based on SVP carbon intensity factor of 277 lbs of CO_2 per MWh for 2025, with 0.029 lbs of CH_4 per MWh and 0.006 lbs of N_2O per MWh. CEC staff assumed the worst-case electricity use of 840,960 MWh/year after full build-out.
[b] Conservatively based on 467 trips per day from project operations.
[c] Estimate based on the chiller manufacturer estimated worst-case 1 percent leakage rate per year (DayZenLLC 2021m) and an AR4 GWP of 1,430 for R-134a (more conservative than AR5 GWP of 1,300). The regulatory leakage rate limit would be 10 percent per year, which would increase the maximum allowable GHG annual emissions tenfold to 2,526 $MTCO_2e$.

Conclusion

Less Than Significant with Mitigation Incorporated. The project's GHG emissions are estimated to be a total of approximately 974 $MTCO_2e$ during the 22-month demolition and construction period. Post-construction estimated emissions from the emergency backup generators during readiness testing and maintenance are estimated to be 3,387 $MTCO_2e$/yr as shown in **Table 4.8-3**.

The project's GHG emissions from the annual readiness testing and maintenance of the emergency backup generators would be below the current BAAQMD CEQA Guidelines threshold of significance of 10,000 $MTCO_2e$/yr. However, BAAQMD staff is in the process of preparing and presenting to the BAAQMD board an update to the CEQA GHG threshold for stationary sources from 10,000 $MTCO_2e$/yr to 2,000 $MTCO_2e$/yr or compliance with CARB's cap-and-trade program. To ensure the project would comply with the possible future CEQA GHG threshold change, staff recommends mitigation measure **GHG-1** to ensure that the GHG emissions of the emergency backup generators are limited to the

BAAQMD CEQA Guidelines GHG threshold of significance applicable at the time of permitting. Additionally, staff recommends **GHG-2** to require the emergency backup generators to use renewable diesel to ensure that operation of the emergency backup generators would not hinder California's efforts to achieve statewide 2030 or 2045 GHG emissions reduction goals. With these measures, the project's direct GHG emissions from stationary sources would not have a significant direct or indirect impact on the environment.

As discussed below, with the implementation of **GHG-2** and **GHG-3**, the GHG emissions from the project's electricity use, mobile sources, and building operation would occur in a manner consistent with the policies reflected in Executive Order B-55-18, CARB's scoping plan, and later programs to implement SB 350 and SB 100 to achieve the statewide 2030 and other future GHG emissions reduction targets. These categories of GHG emissions would not result in a "cumulatively considerable" contribution under CEQA because they would conform with all applicable plans, policies, and regulations adopted for the purpose of GHG emissions reductions, as discussed further in "b" below. Therefore, the maximum potential rate of GHG emissions from the project's electricity use, mobile sources, and building operation are determined to have less-than-significant GHG impacts.

The majority of the project's operational GHG emissions would occur from electricity use or during the readiness testing and maintenance of the emergency backup generators. The project's likelihood of operating for unplanned circumstances or emergency purposes is low and if such operation did occur it would be infrequent and of short duration. Additionally, the requirement to use increasing amounts of renewable diesel fuel would ensure that any GHG emissions resulting from emergency operations are minimized to the extent feasible. Staff, therefore, concludes that these emissions would be less than significant.

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

Construction

Less Than Significant. The project's short-term demolition and construction GHG emissions would not interfere with the state's ability to achieve long-term GHG emissions reduction goals. As mentioned above, the project would implement BMPs, as specified in mitigation measure **AQ-1**, that would reduce construction-related GHG emissions. The project would also participate in the city's Construction & Demolition Debris Recycling Program to further reduce GHG emissions. The city could also make the use of alternative fuels a condition of approval for new developments during pre-construction review meetings. The project would conform to relevant programs and recommended actions detailed in CARB's scoping plan. Similarly, the project components would not conflict with regulations adopted to achieve the goals of CARB's scoping plan. The project would be consistent with General Plan Energy Policies 5.10.3-P1 (promote the use of renewable

energy resources, conservation, and recycling programs) and 5.10.3-P5 (reduce energy consumption through sustainable construction practices, materials, and recycling). The project would also be consistent with Measure 4.2, Increased Waste Diversion, and Measure 5.2, Alternative Construction Fuels, in the 2013 CAP and Action M-3-1, Reuse of salvageable building materials, in the draft 2022 CAP Update.

Operation and Maintenance

Less Than Significant with Mitigation Incorporated. The project's GHG emissions related to operation and maintenance would be caused by the combustion of diesel fuel in the emergency backup generator engines and other routine operational activities (including energy use, mobile sources, and building operation).

i. Direct Project Stationary Combustion Sources

The direct project stationary combustion sources are the emergency backup generator engines.

State Plans, Policies, and Regulations

As discussed under Regulatory Background above, California has set ambitious 2030, 2045, and 2050 GHG emissions reduction goals. Because of these goals, staff concludes it is imperative that all feasible methods of carbon reduction be employed to ensure the project's GHG emissions are less than significant. To reduce the GHG emissions from the emergency backup generator engines, staff recommends mitigation measure **GHG-2** to require the project to use an increasing mix of renewable diesel in the emergency backup generator engines that reflects statutory targets for renewable resources in California's electricity supply. Staff concludes SB 100 establishes a reasonable schedule for increasing reductions in emissions associated with electricity generation, and while the project is not directly required to comply with the SB 100 provisions, it is technically a generator of electricity and, therefore, it is reasonable to apply that schedule to the project for the purpose of increasing the portion of renewable diesel used over time. The mitigation would require annually reporting the status of procuring and using renewable diesel. The mitigation measure would require renewable diesel for a minimum of at least 44 percent of total energy use by the emergency backup generators by December 31, 2024; 52 percent by December 31, 2027; and 60 percent by December 31, 2030. Renewable diesel would be 100 percent of total energy use by the emergency backup generators by December 31, 2045. With **GHG-2**, the project's stationary sources would use renewable diesel to ensure that the operation of the emergency backup generators would not hinder California's efforts to achieve the statewide 2030 or 2045 GHG emissions reduction goals.

Regional Plans, Policies, and Regulations

Bay Area 2017 Clean Air Plan. With **GHG-2**, the direct project stationary combustion sources (i.e. emergency backup generator engines) would also be consistent with BAAQMD's Bay Area 2017 Clean Air Plan measure to Decarbonize Electricity Generation (EN1).

Diesel Free by '33. In 2018, the Mayor of Santa Clara personally became a signatory to the BAAQMD's Diesel Free by '33 initiative. However, the CEC has concluded that Diesel Free by '33 is not an appliable GHG emissions reduction strategy, program or law that facilities must comply with. Nevertheless, it is a regional goal to reduce petroleum-based diesel fuel emissions in communities.

Renewable diesel is currently used as a transportation fuel. There are both federal (CEC 2020) and state incentives that offset the increased cost of renewable diesel compared to petroleum-based diesel when used in transportation applications. However, staff is unaware of any incentives that would apply to stationary sources, including the project. Staff proposes mitigation measure **GHG-2** to require the applicant to use an increasing mix of renewable diesel and phase out the use of petroleum-based diesel.

Local Plans, Policies, and Regulations

Applicable General Plan Policies. Air quality policy 5.10.2-P3 encourages the implementation of technological advances that minimize public health hazards and reduce the generation of air pollutants. The project proposes to use emergency backup generators with advanced air pollution controls. The generator testing schedule includes measures to reduce local air quality impacts. The project would be consistent with the air quality policy 5.10.2-P3 in the General Plan.

Alternative Fuel Backup Generators. The draft 2022 CAP Update includes Action B-3-6 Alternative fuel backup generators, which would require the city to provide information and technical assistance to data centers and other large commercial users to transition from petroleum-based diesel to lower-carbon backup generators (e.g., renewable diesel) by 2030. The applicant has recently set a corporate commitment to achieve net zero carbon emissions by 2030. As part of the strategy to achieve this aggressive goal, the project applicant is actively exploring all options to reduce or eliminate the emissions from the use of diesel-fueled emergency backup generators. The applicant is conducting a feasibility analysis for the use of renewable diesel. The applicant is measuring its GHG footprint and will be achieving commitment to net zero carbon emissions by 2030. Carbon removal offsets will be purchased for emissions that the applicant cannot eliminate through efficiency measures. Investments in carbon removal projects at a local/regional level where the applicant's projects operate will be prioritized (DayZenLLC 2021m).

As discussed in **Section 5 Alternatives**, renewable diesel is expected to become more widely available in the future and would reduce the project's GHG emissions. Therefore, staff proposes mitigation measure **GHG-2** to require the applicant to use an increasing mix of renewable diesel and phase out use of ultra-low sulfur petroleum-based diesel.

ii. Indirect and Non-Stationary Sources Emissions

The project's indirect and non-stationary sources emissions include those from energy use, mobile sources and building operation.

State Plans, Policies, and Regulations

The project's GHG emissions are predominantly from electricity usage. Multiple measures contained in CARB's scoping plan address GHG emissions from energy use. For example, CARB's cap-and-trade program, through the regulation of upstream electricity producers, will account for GHG emissions in the project's power mix and requires these emissions to be reduced by the amount needed to achieve the statewide 2030 GHG emissions reduction goal. Electricity sources and suppliers used by the project must comply with the RPS and cap-and-trade program requirements. This, however, is not to say that new large consumers of electricity should not also be responsible for the GHG emissions resulting from their electricity use.

While SVP itself is compliant with SB 100, staff concludes that because the project would present such a large, single potential increase in load (up to 96 MW at full build out), it is not sufficient to point to SVP's compliance to conclude the project's indirect emissions from electricity use are less than significant. The more electricity demand added to the grid, the harder it becomes to meet long-term GHG emissions reduction goals. Transmission resources are not infinite, and renewable imports are increasingly being taken as other states establish their own GHG emissions reduction goals. Adding renewable generation, while obviously preferable to fossil-fueled generation, is not without its own potential environmental impacts, and asking all customers of a load serving entity to share in the costs of greening additional demand brought on by large commercial customers raises equity concerns. Numerous data centers, many with just under 100 MW loads, are being proposed in SVP territory, with several already under construction or about to start. Without a requirement that these data center facilities bear responsibility for ensuring that their electricity use would not impede the attainment of the state's GHG emissions reduction goals, including SB 100, it is unclear how the state is going to make the increasingly steep reductions needed to avert the most catastrophic climate change scenarios. Staff has confirmed with SVP that the applicant can participate in SVP's LCRE program to purchase 100 percent renewable electricity. Therefore, to conclude the project would not impede the attainment of the state's GHG emissions reduction goals, staff recommends mitigation measure **GHG-3** to require the project applicant to participate in SVP's LCRE program or other renewable energy program that accomplishes the same objective as SVP's LCRE Program for 100 percent carbon-free electricity or purchase ~~carbon offsets~~ renewable energy credits or similar instruments that accomplish the same goals of 100 percent carbon-free electricity.

Other project activities, such as mobile sources and building operation, would be similar to those of other commercial or industrial projects subject to development review by the city of Santa Clara. The project would comply with all applicable city and state green building standards measures, including California Code of Regulations, Title 24, Part 6, baseline standard requirements for energy efficiency, based on the 2019 Energy Efficiency Standards requirements, and the 2019 California Green Building Standards Code, commonly referred to as CALGreen (California Code of Regulations, Title 24, Part 11).

With **GHG-3**, the operation of the project would not conflict with regulations adopted to achieve the goals of the scoping plan. Accordingly, the project's operational activities would not interfere with the state's ability to achieve long-term GHG emissions reduction goals.

Regional Plans, Policies, and Regulations

Bay Area 2017 Clean Air Plan. BAAQMD's Bay Area 2017 Clean Air Plan includes Energy and Climate Measure (ECM)-1 – Energy Efficiency, and due to the relatively high project electrical demand, energy efficiency measures are included in the design and operation of the onsite electrical and mechanical systems, consistent with this measure. The energy efficiency measures include: (1) premium efficiency electrical distribution equipment for the critical information technology (IT) systems, (2) ambient free-cooling coils on the air cooled chillers, (3) adiabatic assist pads on the condenser coils of the chillers, and (4) heat recovery on the Variable Refrigerant Flow (VRF) systems (DayZenLLC 2021m). Staff also proposes mitigation measure **GHG-3** to require the project applicant to participate in SVP's LCRE program or other renewable energy program that accomplishes the same objective as SVP's LCRE Program for 100 percent carbon-free electricity or purchase ~~carbon offsets~~ renewable energy credits or similar instruments that accomplish the same goals of 100 percent carbon-free electricity. These features would be consistent with BAAQMD's Bay Area 2017 Clean Air Plan measure to Decarbonize Electricity Generation (EN1).

Plan Bay Area 2040/SB 375. MTC and ABAG developed an SCS with the adopted Plan Bay Area 2040 to achieve the Bay Area's regional GHG emissions reduction target. Plan Bay Area 2040 sets a 15 percent GHG emissions reduction per capita target from passenger vehicles by 2035 when compared to the project 2005 emissions. However, these emission reduction targets are intended for land use and transportation strategies only. The project has a low concentration of employment and would not contribute to a substantial increase in passenger vehicle travel within the region.

Local Plans, Policies, and Regulations

Applicable General Plan Policies. The city adopted the General Plan to accommodate planned housing and employment growth through 2035. As part of the city's General Plan Update in 2011, new policies were adopted that address the reduction of GHG emissions during the planning horizon of the General Plan. In addition to the reduction measures in the CAP, the General Plan includes goals and policies to address sustainability aimed at reducing the city's contribution to GHG emissions. For the project, the implementation of policies that increase energy efficiency or reduce energy use would effectively reduce indirect GHG emissions associated with energy consumption. The consistency of the project with the applicable land use, air quality, energy, and water policies in the General Plan is analyzed in **Table 4.8-5** below. As shown, the project would be consistent with the applicable sustainability policies in the General Plan.

TABLE 4.8-5 PROJECT CONSISTENCY WITH GENERAL PLAN SUSTAINABILITY POLICIES RELATED TO INDIRECT AND NON-STATIONARY SOURCES EMISSIONS

Emission Reduction Policies	Project Consistency
Air Quality Policies	
5.10.2-P4 Encourage measures to reduce greenhouse gas emissions to reach 30 percent below 1990 levels by 2020.	Water conservation and energy efficiency measures included in the project would reduce GHG emissions associated with the generation of electricity.
Energy Policies	
5.10.3-P1 Promote the use of renewable energy resources, conservation, and recycling programs.	The project would utilize lighting control to reduce energy usage for new exterior lighting and air economization for building cooling. Water efficient landscaping and ultra-low flow plumbing fixtures in the building would be installed to limit water consumption.
5.10.3-P4 Encourage new development to incorporate sustainable building design, site planning, and construction, including encouraging solar opportunities.	
5.10.3-P5 Reduce energy consumption through sustainable construction practices, materials, and recycling.	
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.	
5.10.3-P8 Provide incentives for LEED certified, or equivalent development.	
Water Use Policies	
5.10.4-P6 Maximize the use of recycled water for construction, maintenance, irrigation, and other appropriate applications.	The project would use recycled water for mechanical cooling and for landscaping.
5.10.4-P7 Require installation of native and low-water consumption plant species in new development and public spaces to reduce water usage.	The project would use water efficient landscaping with low-water usage plant material to minimize irrigation requirements.

City of Santa Clara Climate Action Plan. Discussion of the project's conformance with the applicable reduction measures for new development in both the 2013 CAP and the draft 2022 CAP Update are provided below:

Energy Efficiency Measures. Measure 2.3, Data Centers, in the 2013 CAP calls for the completion of a feasibility study of energy efficient practices for new data center projects with an average rack power rating[2] of 15 kilowatts (kW) or more to achieve a power usage effectiveness (PUE) of 1.2 or lower. The average rack power rating for the project is estimated at 8.3 kW, which is significantly below the threshold to trigger a formal feasibility study of energy efficient practices. The annual average PUE of the project would be 1.26 if the building was fully leased and every client utilized its full capacity. The applicant has found that clients do not utilize the full capacity of what

[2] Average rack power rating is a measure of the power available for use on a rack used to store computer servers. The higher the value of kilowatts, the greater power density per rack and generally more energy use per square foot of building area in a data center.

they lease and, therefore, expects the actual PUE to be on the order of 1.25 or lower, which is slightly above Measure 2.3's goal of a PUE of 1.2 or lower. However, the project would have an average rack rating estimated to be 8.3 kW, which is lower than the threshold of 15 kW at which the city requires a feasibility study (DayZenLLC 2021m). The draft 2022 CAP Update does not include this control measure, but includes more actions specifically related to data centers as described below.

The project would comply with all applicable city and state green building standards measures, including California Code of Regulations, Title 24, Part 6, baseline standard requirements for energy efficiency, based on the 2019 Energy Efficiency Standards requirements, and the 2019 California Green Building Standards Code, commonly referred to as CALGreen (Title 24, Part 11 of the California Code of Regulations). This would be consistent with the purpose of Action B-2-3 Energy-efficient and electric-ready building code in the draft 2022 CAP Update.

Water Conservation Measures. Measure 3.1, Water Conservation, in the 2013 CAP calls for a reduction in per capita water use to meet urban water management targets by 2020. Development standards for water conservation would be applied to increase efficiency in indoor and outdoor water use areas. Water conservation measures include the use of the following:

- Recycled or non-potable graywater for landscape irrigation;
- Water efficient landscaping with low-water usage plant material to minimize irrigation requirements; and
- Ultra-low flow toilets and plumbing fixtures in the building.

These water conservation measures would be consistent with Action N-3-4, Water-efficient landscaping requirements, and Action N-3-6, Recycled water connection requirements, in the draft 2022 CAP Update.

Transportation and Land Use Measures. Measure 6.1, Transportation Demand Management, program in the 2013 CAP requires new development located in the city's transportation districts to implement a transportation demand management (TDM) program to reduce drive-alone trips. The project would be required to have a 25-percent vehicle miles traveled (VMT) reduction, with 10 percent coming from TDM measures. An exception to these reduction requirements is made for projects located on properties with a General Plan designation of Light Industrial, such as the project site. Nevertheless, the project would be required to comply with General Plan Policy 5.8.5-P1, which requires new development to implement TDM programs that can include site-design measures, including preferred carpool and vanpool parking, enhanced pedestrian access, bicycle storage, and recreational facilities. Action T-3-1 TDM plan requirements in the draft 2022 CAP Update would also require a 25 percent reduction in project based VMT through active TDM requirements for large employers

over 500 employees, including aggressive regulations to reduce parking in new development.

Electric Vehicle Charging Spaces. Measure 6.3 of the 2013 CAP recommends five percent of all new parking spaces be designated for electric vehicle (EV) charging. The project would provide a total of 30 parking spaces on site including one accessible and one van-accessible parking space. The applicant would provide four EV charging spaces and six Clean Air Vehicle spaces on site. Additionally, up to 96 parking places for the project will be provided across Walsh Avenue on Vantage's CA1 existing campus, but only 87 would be required. Nine EV charging spaces and 12 Clean Air Vehicle spaces would be provided at the CA1 campus (DayZenLLC 2021hh). The project would be consistent with Measure 6.3 of the 2013 CAP. Action T-1-5 Office EV chargers in the draft 2022 CAP Update would also require the city's Community Development Department, Building Division, to implement proposed Reach Code to require all new commercial office units to install Level 2 charging stations at 10 percent of parking spaces, Level 1 circuits at 10 percent of parking spaces, and 30 percent EV-capable.

Urban Cooling. Measure 7.2 of the 2013 CAP and Action C-2-3, High-albedo parking lots, in the draft 2022 CAP Update both require new parking lots be surfaced with more sustainable pavement materials to reduce heat gain. The project would meet the CAP as adopted in its City Code. Trees are proposed to be planted adjacent to the parking bays. If identified as a requirement by the city during the building permit phase, a high-albedo surface paving course (such as a light-colored chip-seal) can be placed over the asphalt paving in the parking bays (DayZenLLC 2021m).

Carbon Neutral Data Centers and Renewable Electricity for New Data Centers. The draft 2022 CAP Update includes Action B-1-7, Carbon neutral data centers, which would require all new data centers to operate on 100 percent carbon neutral energy, with offsets as needed. However, this requirement would not apply to data centers with planning application approval within six months of the CAP adoption date, which is planned for April 2022 (CEC 2021x). In addition, the draft 2022 CAP Update also includes Action B-3-7, Renewable electricity for new data centers, which requires the city/SVP to support convening of a data center working group to identify and implement renewable electricity purchasing options for commercial customers. SVP is on track to meet the state's GHG emissions reduction goals. As mentioned above, the applicant is measuring its GHG footprint and will be achieving its commitment to net zero carbon emissions by 2030. It is unclear whether the project would be approved by the city within six months of the 2022 CAP Update adoption date. Considering the additional time needed for the city and BAAQMD to permit the project, it is possible the project could be subject to Action B-1-7 in the draft 2022 CAP Update. Even if the project's applicant obtains its city permit in time to avoid the application of Action B-1-7, staff concludes that the project must employ all feasible means available to reduce its GHG emissions to avoid a significant adverse environmental impact. Therefore, staff proposes mitigation measure **GHG-3** to

require the applicant to participate in SVP's LCRE program or other renewable energy program that accomplishes the same objective as SVP's LCRE Program for 100 percent carbon-free electricity or purchase ~~carbon offsets~~ renewable energy credits or similar instruments that accomplish the same goals of 100 percent carbon-free electricity. The applicant is working with SVP to see if an option for the provision of lower carbon electricity is available and feasible.

The applicant would incorporate measures from the CAP, as specified by the city during the design review process to ensure compliance with applicable laws, ordinances, regulations, and standards. Conformance with the applicable design codes and policies will be enforced during the city design review process.

Conclusion

Less Than Significant with Mitigation Incorporated. With the implementation of the efficiency measures to be incorporated into the project and mitigation measures **GHG-2** and **GHG-3**, GHG emissions related to the project would be consistent with the applicable plans and policies adopted to reduce GHG emissions and would comply with all regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. The potential for the project to conflict with an applicable plan, policy, or regulation for GHG emissions reductions would be less than significant.

4.8.4 Mitigation Measures

GHG-1: If the Bay Area Air Quality Management District (BAAQMD) has adopted a new threshold of significance for stationary sources on or before CA3 receives its Authority to Construct permit, the project shall reduce the time the engines operate for readiness testing and maintenance on an annual basis to ensure the project complies with the new limit. Prior to the start of operation, the project owner shall provide a report to the director, or director's designee, of the city of Santa Clara Community Development Department ~~Planning Division~~ describing how the project intends to comply with the limit, including a proposed schedule of readiness testing and maintenance operations for the year. The project owner shall provide an annual report thereafter to the director, or director's designee, of the city of Santa Clara Planning Division describing all operations of the facility that occurred for readiness testing and maintenance and calculating the attendant GHG emissions that resulted for the year.

GHG-2: The project owner shall use renewable diesel as the primary fuel for the emergency backup generators to the maximum extent feasible, and only use ultra-low sulfur diesel (ULSD) as a secondary fuel in the event of supply challenges or disruption in obtaining renewable diesel. If testing confirms that use of this fuel will not result in emissions that would cause the project to exceed applicable thresholds after any available mitigation for such emissions has been applied, the project owner shall ensure that renewable fuels are used for a minimum of at least 44 percent of total energy use by the emergency backup generators by December 31, 2024; 52 percent by December 31, 2027;

and 60 percent by December 31, 2030. Renewable fuels shall be used for 100 percent of total energy use by the emergency backup generators by December 31, 2045. The project owner shall provide an annual report of the status of procuring and using renewable diesel to the director, or director's designee, of the city of Santa Clara Electric Utility Department ~~Planning Division~~ demonstrating compliance with the mitigation measure.

GHG-3: The project owner shall ensure that 100 percent of the electricity purchased to power the project is covered by carbon-free resources using one of the following options: (1) participate in Silicon Valley Power (SVP) Large Customer Renewable Energy (LCRE) Program or other renewable energy program that accomplishes the same objective as SVP's LCRE Program or other renewable energy program that accomplishes the same objective as SVP's LCRE Program for 100 percent carbon-free electricity, or (2) purchase ~~carbon offsets~~ renewable energy credits or similar instruments that accomplish the same goals of 100 percent carbon-free electricity. The project owner shall provide documentation to the director, or director's designee, of the city of Santa Clara Electric Utility Department ~~Planning Division~~ of enrollment and annual reporting of continued participation in SVP's LCRE Program with 100 percent carbon-free electricity coverage. If not enrolled in SVP's LCRE Program, the project owner shall provide documentation and annual reporting to the director, or director's designee, of the city of Santa Clara Electric Utility Department ~~Planning Division~~ that confirms that alternative measures achieve the same 100 percent carbon free electricity as SVP's LCRE Program, with verification by a qualified third-party auditor specializing in greenhouse gas emissions.

4.8.5 References

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4.9 Hazards and Hazardous Materials

This section describes the environmental and regulatory setting and discusses impacts specific to hazards and hazardous materials associated with the construction and operation of the project.

HAZARDS AND HAZARDOUS MATERIALS Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 or excessive noise 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 a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

Environmental checklist established by CEQA Guidelines, Appendix G.

4.9.1 Environmental Setting

Hazardous Waste and Substances Sites

The project owner hired TRC Solutions, Inc. (TRC) to conduct a Phase 1 Environmental Site Assessment (ESA) and to determine the location of hazardous wastes and hazardous material release sites within 0.25 mile of the project. The analysis provided by TRC included within the Phase 1 ESA a search through Environmental Data Resources, Inc (EDR) a proprietary database related to generation, storage, handling, transportation,

treatment of wastes, and the remediation of contaminated soil and groundwater sites. TRC included searches of the State Water Resources Control Board's (SWRCB), Geotracker database, and the California Department of Toxic Substance Control's (DTSC) EnviroStor database.

In 1939, the eastern portion of the project site was covered by agricultural orchards and the western portion of the project was undeveloped. Based on an aerial photograph, the project site conditions remained consistent through 1968. In 1974, the eastern portion of the project site was completely cleared of all agricultural orchards and remained undeveloped land. In 1982, the project site had been redeveloped as a commercial property with only one building located on the site. Currently, the project site is leased by Mia Sole for operation as a solar panel manufacturing facility (CA3 2021b).

In 2020, TRC completed a Phase II ESA to evaluate the presence of potential contaminants in soil and soil vapor from past uses at the project site. TRC conducted a limited subsurface investigation that included sixteen soil samples and five soil vapor samples to evaluate the current subsurface conditions. In the soil samples collected, low levels of petroleum hydrocarbons and fuel-related volatile organic compounds (VOCs) were detected at levels less than their residential screening criteria. Several organochlorine pesticides dichloroethane (DDD), dichlorodiphenyldichloroethylene (DDE), dichlorodiphenyltrichloroethane (DDT), dieldrin, and endosulfan II were detected at levels less than their residential screening. Lead was also detected in several soil samples at levels less than their residential screening criteria. Heavy metals (cobalt and nickel) were detected in some soil samples at concentrations exceeding the toxicity-based screening levels, but below regional natural background concentrations. Arsenic concentrations exceeded the toxicity-based screening levels and regional natural background concentrations. Elevated concentration of lead and arsenic were detected at the greatest frequency and magnitude in the soil samples likely associated with the prior agricultural uses of the property.

Soil vapor detections included fuel-related VOCs and chlorinated solvents. However, all the detections were below the most stringent (i.e., residential land use) screening criteria published by the U.S. Environmental Protection Agency and the California Environmental Protection Agency for evaluation of vapor intrusion risks, except for chloroform. Per the Phase II ESA, the source of the chloroform is unknown, but is often found as a laboratory contaminant. TRC stated the detected soil vapor concentrations do not represent a significant adverse impact to the planned commercial land use. In the event the project site is redeveloped for residential land use, additional evaluation of soil vapor conditions may be warranted.

Airports

The Norman Y. Mineta San Jose International Airport, a public airport, is approximately 1.75 miles west of the proposed project and has two runways that exceed 3,200 feet in length (Air Nav 2019). The Santa Clara County Airport Land Use Commission Plan (CLUP) shows that the proposed project does not fall within any Airport Safety Zone. The project's Federal Aviation Regulations (FAR) Part 77 (obstruction) surface is 212 feet above mean sea level (AMSL), as identified in Figure 6 of the Comprehensive Land Use Plan for San Jose International Airport (SCCALUC 2016).

Schools

The Bracher Elementary School, a public school, is approximately 0.25 miles west of the proposed project site.

Emergency Evacuation Routes

The Santa Clara Local Hazard Mitigation Plan (Santa Clara County 2017) identifies hazards and provides a risk assessment for the potential natural hazards, such as a flood, wildfire, or earthquake, that could impact the county. The plan does not identify any designated evacuation routes near the project site.

Wildfire Hazards

The California Department of Forestry and Fire Protection (Cal Fire) identifies, and maps areas of significant fire hazards based on fuels, terrain, and other relevant factors. The maps identify this information as a series of Fire Hazard Severity Zones, which are progressively ranked in severity as un-zoned, moderate, high, and very high. State responsibility areas (SRAs) are locations where the State of California is responsible for wildland fire protection. Local responsibility areas (LRAs) are locations where the responding agency is the local county or city. The project site would be located within Santa Clara County.

The Cal Fire maps for Santa Clara County (CalFire 2007) indicate that the project site is in an LRA. Within the LRA, the project site falls within an un-zoned Fire Hazard Severity Zone that indicates that the project site has a less than moderate susceptibility to wildland fires. For more information on wildfire hazards, see **Section 4.19 Wildfire**.

Regulatory Background

Federal

Resource Conservation and Recovery Act. The federal Toxic Substances Control Act (1976) and the Resource Conservation and Recovery Act of 1976 (RCRA) established a program administered by the United States Environmental Protection Agency (U.S. EPA) for the regulation of the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA was amended in 1984 by the Hazardous and Solid Waste Act, which affirmed and extended the "cradle to grave" system of regulating hazardous

wastes. The use of certain techniques for the disposal of some hazardous wastes was specifically prohibited by the Hazardous and Solid Waste Act.

Comprehensive Environmental Response, Compensation, and Liability Act. Congress enacted the federal CERCLA, including the Superfund program, on December 11, 1980. This law provided broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA established requirements concerning closed and abandoned hazardous waste sites; provided for liability of persons responsible for releases of hazardous waste at these sites; and established a trust fund to provide for cleanup when no responsible party could be identified. CERCLA also enabled the revision of the National Contingency Plan. The National Contingency Plan provided the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, and/or contaminants. The National Contingency Plan also established the National Priorities List. CERCLA was amended by the Superfund Amendments and Reauthorization Act on October 17, 1986.

Department of Transportation. The United States Department of Transportation (DOT) is the primary federal agency responsible for regulating the proper handling and storage of hazardous materials during transportation (49 C.F.R. §§ 171-177 and 350-399).

Federal Aviation Administration. Title 14, Part 77.9 of the Code of Federal Regulations requires Federal Aviation Administration (FAA) notification for any construction or alteration of navigable airspace exceeding 200 feet above ground level (AGL). It also requires notification for construction or alterations within 20,000 feet of an airport with a runway more than 3,200 feet in length if the height of the construction or alteration exceeds a slope of 100 to 1 extending outward and upward from the nearest point of the nearest runway of the airport.

If a project's height exceeds 200 feet or exceeds the 100:1 surface, the project applicant must submit a copy of FAA Form 7460-1, Notice of Proposed Construction or Alteration, to the FAA.

State

California Environmental Protection Agency. The California Environmental Protection Agency (CalEPA) created in 1991, unified California's environmental authority in a single cabinet-level agency and brought the California Air Resources Board (CARB), State Water Resources Control Board (SWRCB), Regional Water Quality Control Boards (RWQCBs), Integrated Waste Management Board, DTSC, Office of Environmental Health Hazard Assessment, and Department of Pesticide Regulation under one agency. These agencies under the CalEPA "umbrella" provide protection of human health and the environment and ensure the coordinated deployment of state resources. Their mission is to restore, protect and enhance the environment, to ensure public health, environmental quality, and economic vitality.

The California Hazardous Waste Control Law. CalEPA administers the California Hazardous Waste Control Law to regulate hazardous wastes. The Hazardous Waste Control Law lists 791 chemicals and about 300 common materials that may be hazardous; establishes criteria for identifying, packaging and labeling hazardous wastes; prescribes management controls; establishes permit requirements for treatment, storage, disposal and transportation; and identifies some wastes that cannot be disposed of in landfills.

Department of Toxic Substances Control. DTSC is the primary agency in California that regulates hazardous waste, cleans up existing contamination, and looks for ways to reduce the hazardous waste produced in California. DTSC regulates hazardous waste in California primarily under the authority of RCRA and the California Health and Safety Code. Other laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning.

California Occupational Safety and Health Administration. California Occupational Safety and Health Administration (Cal OSHA) is the primary agency responsible for worker safety related to the handling and use of chemicals in the workplace. Cal OSHA standards are generally more stringent than federal regulations. Employers are required to monitor worker exposure to listed hazardous substances and notify workers of exposure (Title 8, Cal. Code Regs., §§ 337 340). The regulations specify requirements for employee training, availability of safety equipment, accident-prevention programs, and hazardous substance exposure warnings.

Department of California Highway Patrol. Department of California Highway Patrol is the primary agency responsible for enforcing the regulations related to the transport of hazardous materials on California roads and highways (Title 13, Cal. Code Regs., §§ 1160-1167).

Local

Santa Clara County Operational Area Hazard Mitigation Plan. The plan includes a risk assessment that identifies the natural hazards and risks that can impact a community based on historical experience, estimates the potential frequency and magnitude of disasters, and assesses potential losses to life and property. The plan also includes developed mitigation goals and objectives as part of a strategy for mitigating hazard-related losses.

4.9.2 Environmental Impacts

a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Construction

Less Than Significant Impact. During the construction phase of the project, the only hazardous materials used would be paints, cleaners, solvents, gasoline, motor oil, welding gases, and lubricants. When not in use, any hazardous material would be stored in designated construction staging areas in compliance with local, state, and federal requirements. Any impacts resulting from spills or other accidental releases of these materials would be limited to the site due to the small quantities involved and their infrequent use, hence reduced chances of release. Temporary containment berms would also be used to help contain any spills during the construction of the project.

During construction, all 44 2.75 MW diesel generators fuel tanks would have to be filled. The transportation of the diesel fuel to the site would take many tanker trucks trips. Deliveries of diesel fuel during the project's operation would be scheduled on an as-needed basis resulting in four fuel tanker truck trips annually. Diesel fuel has a long history of being routinely transported and used as a common motor fuel. It is appropriate to rely upon the extensive regulatory framework that applies to the shipment of hazardous materials on California highways and roads to ensure safe handling in general transportation (see Federal Hazardous Materials Transportation Law 49 USC § 5101 et seq., DOT regulations 49 CFR subpart H, §§ 172–700, and California Department of Motor Vehicles (DMV) regulations on hazardous cargo). The site contains no unique features that would prohibit existing regulations from serving as adequate mitigation; therefore, the transportation of diesel fuel would pose a less than significant risk to the surrounding public.

The routine transport use or disposal of hazardous materials would have a less than significant impact to the public or the environment.

Operation

Less Than Significant Impact. Diesel fuel would be used during routine testing and maintenance, and emergencies if they occurred. The 2.75 MW generator fuel tanks have an approximately 5,400-gallon diesel fuel storage tank that would only be filled to 95 percent capacity. Based on the maintenance and testing schedule, the average fuel consumption for each generator per month would be approximately 174 gallons of diesel fuel. These monthly tests would require each generator fuel tank to be refilled to 95 percent capacity approximately every 3 months (CA3 2021f).

The project would use standard practice for fuel quality and maintenance of stored diesel fuel. Standard practice includes that each engine would have a fuel filtration system that would filter the fuel contents daily. Commercial diesel fuels also contain biocides that prevent microbial growth and additives that help to stabilize the fuel for several months.

These Tier 4 diesel generators would use selective catalytic reduction (SCR) that injects a liquid-reductant through a special catalyst into the exhaust stream of the diesel engine. The reductant source would be called diesel exhaust fluid (DEF) which is a non-hazardous solution of 67.5 percent water and 32.5 percent automotive grade urea. The estimated shelf life of the DEF based on ambient temperatures for Santa Clara county is approximately 12-18 months (CA3 2021f). The replacement strategy is to contract with Valley Oil to either replenish the DEF supply by adding DEF from a bulk tanker truck to the existing 55-gallon DEF drum containers or replace old 55-gallon DEF drum containers with new (CA3 2021f).

The DEF consumption would vary depending upon the environment, operation, and duty cycle of equipment. Each generator enclosure is equipped with 110 gallons (two 55-gallon drums) of DEF. The maximum consumption of DEF per generator is 13 gallons per hour, resulting in 8 hours of generator run time. Based on the maintenance and testing schedule anticipated of 35 hours per year per generator, the upper bound of DEF consumption per generator would be 455 gallons per year. CA3DC replacement strategy is to have Valley Oil replenish the DEF supply by adding DEF from a bulk tanker truck or tank to the existing 55-gallon drums located inside the generator enclosure or replace the 55-gallon drums with new DEF (CA3 2021f). The DEF tank levels would be monitored and refilled as necessary.

With the above listed safety features and precautions, the risk to the off-site public or environment through the routine transport, use, or disposal of hazardous materials would have a less than significant impact.

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?

Construction

Less Than Significant Impact. As described under the discussion for impact criteria "a", project construction would require the limited use of hazardous materials, such as fuels, lubricants, and solvents. The storage and use of hazardous materials during construction could result in the accidental release of small quantities of hazardous materials typically associated with minor spills or leaks. However, as discussed in impact criteria "a", hazardous materials would be stored, handled, and used in accordance with applicable regulations. Personnel would be required to follow instructions on health and safety precautions and procedures to follow in the event of a release of hazardous materials. All equipment and materials storage would be routinely inspected for leaks. Records would be maintained for documenting compliance with the storage and handling of hazardous materials.

For the above reasons, the project impacts would be less than significant.

Operation

Less Than Significant Impact. The project would not create a significant hazard to the public or environment due to an accidental release of a hazardous material. Although a substantial quantity of diesel fuel would be stored on-site, its storage would be in a dedicated fuel tank beneath each 2.75 MW generator. The 2.75 MW generator fuel tank would hold a maximum of 5,100 gallons of diesel fuel (CA3 2021b).

Each generator's integrated fuel tank would be of a double-walled high integrity design. The interstitial space between the inner and outer walls of each tank would be continuously monitored electronically for the presence of leaks through the inner wall. The monitoring system would be electronically linked to an alarm system in the engineering office that would alert personnel if a leak were detected in any of the inner tanks.

Deliveries of diesel fuel by tanker truck during the project's operation would be scheduled approximately every 3 months or on an as-needed basis. Diesel tanker trucks would use warning signs and/or wheel chocks in the loading/unloading areas to prevent the truck from moving before complete disconnection of the flexible or fixed transfer lines. An emergency pump shut-off would be available in case a pump hose breaks during the fueling of the tanks. In addition, a temporary spill catch basin would be located at each fill port for the generators during fueling events. During fueling events, storm drains will be temporarily blocked off by the truck driver and/or facility staff (CA3 2021b).

For the above listed safety features and precautions, the risk to the off-site public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials would have a less than significant impact.

c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Construction

Less Than Significant Impact with Mitigation Incorporated. The Bracher Elementary school is approximately one-quarter mile south of the project site. As described under the discussion for impact criteria "a", project construction would require the limited use of hazardous materials which would be stored, handled, and used in accordance with applicable local, state, and federal regulations. Any impacts resulting from spills or other accidental releases of these materials would be limited to the site due to the small quantities involved and their infrequent use. In addition, ground disturbing activities associated with the grading and construction activities of the project would have the potential to encounter contaminated soil. The applicant proposed measure **HAZ-1** would require a site mitigation plan (SMP) to be created to establish proper procedures to be taken when contaminated soil is found and how to dispose of the contaminated soil properly. If contaminated soils are found in concentrations above thresholds, the project would halt construction and the soil would be treated in place or removed to an

appropriate disposal facility. For the above listed safety measures and with implementation of **HAZ-1**, the construction of the project would create a less than significant impact to the public or the environment.

Operation

Less Than Significant Impact. As described in the impact criteria "b", the project would store large amounts of diesel fuel on site. However as discussed in impact criteria "b", with the listed safety features and precautions, the risk to the off-site public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials would have a less than significant impact.

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?

Construction

Less Than Significant Impact with Mitigation Incorporated. According to a review of the Envirostor and GeoTracker databases, the project site does not have any known, open cases on the hazardous materials sites compiled pursuant to Government Code section 65962.5. The site was originally covered by agricultural orchards and the western portion of the project was undeveloped. In 1982, the project site had been redeveloped as a commercial property with only one building located on the site. Currently, the project site is leased by Mia Sole for operation as a solar panel manufacturing facility (CA3 2021b). TRC's limited subsurface investigation conducted during a Phase II ESA found heavy metals (cobalt and nickel) were detected in some soil samples at concentrations exceeding the toxicity-based screening levels, but below regional background concentrations. Arsenic concentrations exceeded the toxicity-based screening levels and regional background concentrations. Elevated concentration of lead and arsenic were detected at the greatest frequency and magnitude in the soil samples likely associated with the prior agricultural uses of the property. Soil vapor detections included fuel-related VOCs and chlorinated solvents that were below the most stringent screening criteria, except for chloroform. The source of the chloroform is unknown but is often found as a laboratory contaminant. However, the chloroform concentrations detected do not represent a significant adverse impact to the planned commercial land use.

Ground disturbing activities associated with the grading and construction activities of the project would have the potential to encounter impacted groundwater and/or soil. The contaminated soils could contain organochlorine pesticides, heavy metals, and VOC's. The applicant proposed measure **HAZ-1** would require a SMP to be created. The SMP would establish proper procedures to be taken when groundwater and contaminated soil is found and how to dispose of the contaminated soil properly. In addition, if contaminated soils are found in concentrations above thresholds, the project would halt construction and the soil would be treated in place or removed to an appropriate disposal facility. With

the implementation of **HAZ-1**, the construction of the project would create a less than significant impact to the public or the environment.

Operation

No Impact. Operation and maintenance activities would not involve excavation activities and would therefore have no impact.

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 or excessive noise for people residing or working in the project area?

Construction

Less Than Significant Impact. The project site is approximately 1.75 miles southeast of the Norman Y. Mineta San Jose International Airport. The FAA establishes a maximum structure height of 212 feet AMSL at the project site (SCCALUC 2016). Even when accounting for the 48.8-foot AMSL finished floor elevation of the project site, the CA3DC, at 108.4 feet AGL and therefore 157.2 feet AMSL, would not exceed the FAA's obstruction surface of 212 AMSL.

The project site is still subject to Title 14, Part 77.9 of the Code of Federal Regulations, Construction or Alteration Requiring Notice. With a maximum project height of 108.4 feet AGL, the project would exceed the FAA notification 100:1 surface threshold of 92.4 feet at the project site. On August 23, 2021, the project applicant submitted Form 7460-1, Notice of Proposed Construction or Alteration, to the FAA for review (CA3 2021g). Because the project's tallest structure would be far below the project site's FAR Part 77 (obstruction) surface of 212 feet AMSL, as identified in Figure 6 of the Comprehensive Land Use Plan for San Jose International Airport, staff anticipates the FAA issuing a Determination of No Hazard for CA3DC. Therefore, the project would not pose a safety hazard and would have a less than significant impact.

The project site does not fall within any Airport Safety zone, as identified in Figure 7 of the Comprehensive Land Use Plan for San Jose International Airport (SCCALUC 2016). Therefore, the project would not pose a safety hazard and would have a less than significant impact. Project construction would not result in excessive noise impacts for people residing or working in the project area, as described in a more detailed analysis in **Section 4.13 Noise.**

Operation

No Impact. Operation and maintenance activities for the project site would be similar to those for a similarly sized industrial building and would not have an impact on people working or residing in the area. In addition, the thermal plume generated by the project would not pose a safety hazard to any aircraft near the Norman Y. Mineta San Jose International Airport., as described in a more detailed analysis in **Section 4.17 Transportation.**

f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Construction

No Impact. A review of the Santa Clara County Operational Area Hazard Mitigation Plan for the project revealed no specific mapping or delineation of emergency evacuation or access routes. The plans identified that the area police, fire department, and other emergency services would implement their emergency response or evacuation plans according to their communications protocols and hazard mitigation programs. The project site is not identified on any emergency evacuation or access routes. In addition, the construction would not require any road closures since the work would all be done onsite. During project construction, there would be no impact to an adopted response plan or emergency evacuation plan.

Operation

No Impact. After construction, no lane closures would be needed, and no impact to a response plan or emergency evacuation plan would occur.

g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Construction and Operation

No Impact. The project site is in Santa Clara County. It is within an un-zoned Fire Hazard Severity Zone, within an LRA, indicating that the project site has a less than moderate susceptibility to wildland fires. The project site is not adjacent to wildlands. The project site is currently developed with one one-story commercial building. The project area consists primarily of commercial and industrial land uses to the north and east and residential uses to the south and west. Although equipment and vehicles used during construction, as well as welding activities, have the potential to ignite dry vegetation, the project is within an urban area and is surrounded by commercial buildings that have very limited dry vegetation. In addition, the project is within an un-zoned fire hazard area. Therefore, there would be no impact from wildland fires resulting from construction activities related to the project.

4.9.3 Mitigation Measures

The following design measure (Proposed Design) is proposed to be incorporated as part of the project to mitigate potential impacts to less than significant levels. (CA3 2021b).

HAZ-1: The project will implement the following measures to reduce potentially significant soil and or groundwater impacts to construction workers to a less than significant level.

- Prior to the issuance of grading permits, shallow soil samples shall be taken in areas where soil disturbance is anticipated to determine if contaminated soils with concentrations above established construction/trench worker thresholds may be present due to historical agricultural use and from historical leaks and spills. The soil sampling plan must be reviewed and approved by the Santa Clara Fire Department Fire Prevention and Hazardous Materials Division prior to initiation of work. Once the soil sampling analysis is complete, a report of the findings will be provided to the Santa Clara Fire Department Fire Prevention and Hazardous Materials Division and other applicable City staff for review.
- Documentation of the results of the soil sampling shall be submitted to and reviewed by the City of Santa Clara prior to the issuance of a grading permit. Any soil with concentrations above applicable environmental screening levels or hazardous waste limits would be characterized, removed, and disposed of off-site at an appropriate landfill according to all state and federal requirements.
- A Site Management Plan (SMP) will be prepared to establish management practices for handling impacted groundwater and/or soil material that may be encountered during site development and soil-disturbing activities. Components of the SMP will include:
    - a detailed discussion of the site background.
    - a summary of the analytical results.
    - preparation of a Health and Safety Plan by an industrial hygienist.
    - protocols for conducting earthwork activities in areas where impacted soil and/or groundwater are present or suspected.
    - worker training requirements, health and safety measures and soil handing procedures shall be described.
    - protocols shall be prepared to characterize/profile soil suspected of being contaminated so that appropriate mitigation, disposal, or reuse alternatives, if necessary, can be implemented.
    - notification procedures if previously undiscovered significantly impacted soil or groundwater is encountered during construction.
    - notification procedures if previously unidentified hazardous materials, hazardous waste, underground storage tanks are encountered during construction.

- on-site soil reuse guidelines.
- sampling and laboratory analyses of excess soil requiring disposal at an appropriate off-site waste disposal facility.
- soil stockpiling protocols; and
- protocols to manage groundwater that may be encountered during trenching and/or subsurface excavation activities. Prior to issuance of grading permits, a copy of the SMP must be approved by the Santa Clara County Environmental Health Department, and the Santa Clara Fire Department Fire Prevention and Hazardous Materials Division. Prior to issuance of grading permits, a copy of the SMP must be approved by the Santa Clara County Environmental Health Department, and the Santa Clara Planning Division.

If contaminated soils are found in concentrations above risk-based thresholds pursuant to the terms of the SMP, remedial actions and/or mitigation measures will be taken to reduce concentrations of contaminants to levels deemed appropriate by the selected regulatory oversight agency for ongoing site uses. Any contaminated soils found in concentrations above thresholds to be determined in coordination with regulatory agencies shall be either 1) managed or treated in place, if deemed appropriate by the oversight agency or 2) removed and disposed of at an appropriate disposal facility according to California Hazardous Waste Regulations (CCR, tit. 22, div. 4.5) and applicable local, state, and federal laws.

4.9.4 References

CEC 2021 – California Energy Commission (CEC). (TN 237380). CEC Data Requests, Set 1 for CA3 Backup Generating Facility, dated April 5, 2021. Available online at: https://efiling.energy.ca.gov/GetDocument.aspx?tn=238130&DocumentContentId=71392

CalFire 2007 – California Department of Forestry and Fire Protection (CalFire). 2007 Santa Clara County – Very High Fire Hazard Severity Zones in State Responsibility Area. Available online at: https://osfm.fire.ca.gov/divisions/wildfire-planning-engineering/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/

DTSC 2018 – Department of Toxic Substances Control (DTSC). Envirostor Database. Available online at: http://www.envirostor.dtsc.ca.gov/public/ Accessed on: August 3, 2021

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SWRCB 2018 – State Water Resources Control Board (SWRCB). GeoTracker Database. Available online at: http://geotracker.waterboards.ca.gov. Accessed on: August 3, 2021

CA3 2021a – Application for Small Power Plant Exemption: VDC CA3 Backup Generating Facility, Part I, dated April 2021. (TN 237380). Available online at: https://efiling.energy.ca.gov/GetDocument.aspx?tn=237380&DocumentContentId=70567

CA3 2021b – Application for Small Power Plant Exemption: VDC CA3 Backup Generating Facility, Part II, dated April 2021. (TN 237423). Available online at: https://efiling.energy.ca.gov/GetDocument.aspx?tn=237423&DocumentContentId=70609

CA3 2021c – Application for Small Power Plant Exemption: VDC CA3 Backup Generating Facility, Part III, dated April 2021. (TN 237381). Available online at: https://efiling.energy.ca.gov/GetDocument.aspx?tn=237381&DocumentContentId=70569

CA3 2021d – Application for Small Power Plant Exemption: VDC CA3 Backup Generating Facility, Part IV, dated April 2021. (TN 237382). Available online at: https://efiling.energy.ca.gov/GetDocument.aspx?tn=237382&DocumentContentId=70570

CA3 2021e – Application for Small Power Plant Exemption: VDC CA3 Backup Generating Facility, Part V, dated April 2021. (TN 237383). Available online at: https://efiling.energy.ca.gov/GetDocument.aspx?tn=237383&DocumentContentId=70571

CA3 2021f – Response to CEC staff data request set 1 Part I, VDC CA3 Backup Generating Facility (21-SPPE-01), June 2021 (TN 238215). Available online at: https://efiling.energaCy.ca.gov/GetDocument.aspx?tn=238215&DocumentContentId=71489

CA3 2021g – Response to CEC staff data request set 3, VDC CA3 Backup Generating Facility (21-SPPE-01), June 2021 (TN 239485). Available online at: https://efiling.energy.ca.gov/GetDocument.aspx?tn=239485&DocumentContentId=72949

4.10 Hydrology and Water Quality

This section describes the environmental and regulatory setting and discusses impacts associated with the construction and operation of the project with respect to hydrology and water quality.

HYDROLOGY AND WATER QUALITY Would the project:	**Potentially Significant Impact**	**Less than Significant with Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
a. Violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water 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 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 substantial erosion or siltation, on- or offsite;	☐	☐	☒	☐
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 storm water drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv. impede or redirect flood flows?	☐	☐	☒	☐
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?	☐	☐	☒	☐

Environmental checklist established by CEQA Guidelines, Appendix G

4.10.1 Setting

Storm Drainage and Water Quality

The project would be constructed in the city of Santa Clara, within the Guadalupe watershed. The Guadalupe watershed drains to the San Francisco Bay, located a few miles northwest of the proposed project site. The site is located west of San Tomas Aquino Creek and the Guadalupe River. Storm water from the project site drains into the city of Santa Clara's storm water drain system along Walsh Avenue, which

discharges to Guadalupe River and ultimately to San Francisco Bay.

The water quality of San Tomas Aquino Creek and other creeks is influenced by pollutants contained in storm water runoff. Storm water runoff from urban areas typically contains pollutants such as sediment, metals, pesticides, herbicides, oil, grease, asbestos, lead, and animal wastes.

Since the site is currently developed with a single story 115,000-square-foot office building and associated paved parking and loading dock areas, the site is generally impervious. The proposed project would consist of construction of a four-story data center building with 469,482 square feet of floor space, a utility substation, a generator equipment yard, a parking lot and landscaping, and a recycled water pipeline. The site is approximately 6.7 acres in size.

Groundwater

The Santa Clara Valley groundwater basin is divided into four interconnected subbasins that border the southern San Francisco Bay. The proposed project would be located in the Santa Clara Subbasin, which extends across the Santa Clara Valley in the region south of San Francisco Bay.

Fluctuations in rainfall, changing drainage patterns, and other hydrologic factors can influence groundwater levels. Based on the Seismic Hazard Zone Report 051 prepared by the Department of Conservation for the San Jose West 7.5-Minute Quadrangle, the historic shallowest observed depth to groundwater in the general site area was about 10 feet below ground surface (bgs) (CGS 2002).

The project site and surrounding areas have historically been used for industrial purposes. Though the site does not have any open contamination investigations shown on the Department of Toxic Substances Control's Envirostor website, site contamination is possible.

Flooding

The average elevation of the existing project site is approximately 40-50 feet above the 1988 North American Vertical Datum (NAVD88) (USGS 2018). According to the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM) 06085C0226H, effective May 18, 2009, the project site is located within Zone X. Zone X is defined as areas of 0.2 percent annual chance of flood (or a 500-year flood), areas of one percent chance of annual flood (100-yer flood) with average depths of less than one foot, or with drainage areas less than one square mile, and areas protected by levees from one percent annual chance of flood.

The project site is also not within an area mapped as vulnerable to sea level rise in the National Oceanic and Atmospheric Administration's Digital Coast, Sea Level Rise Viewer (NOAA 2021).

Regulatory Background

Federal

Clean Water Act and California's Porter-Cologne Water Quality Control Act. The State Water Resources Control Board (SWRCB) and its nine Regional Water Quality Control Boards (RWQCB) are responsible for the regulation and enforcement of the water quality protection requirements of the federal Clean Water Act (CWA) and the state's Porter-Cologne Water Quality Control Act (Porter-Cologne). The National Pollutant Discharge Elimination System (NPDES) is the permitting program that allows point source dischargers to comply with the CWA and Porter-Cologne laws. This regulatory framework protects the beneficial uses of the state's surface and groundwater resources for public benefit and environmental protection. Protection of water quality could be achieved by ensuring the proposed project complies with applicable NPDES permits from the SWRCB or the San Francisco Bay RWQCB.

Under Section 303(d) of the CWA, states are required to identify impaired surface water bodies and develop total maximum daily loads (TMDLs) for contaminants of concern. The TMDL is the quantity of pollutant that can be assimilated by a water body without violating water quality standards. Listing of a water body as impaired does not necessarily suggest that the water body cannot support the beneficial uses; rather, the intent is to identify the water body as requiring future development of a TMDL to maintain water quality and reduce the potential for future water quality degradation.

The San Francisco Bay RWQCB issued a Municipal Regional Storm Water NPDES Permit (Permit Number CAS612008) that requires the city of Santa Clara to implement a storm water quality protection program. This regional permit applies to 77 Bay Area municipalities, including the city of Santa Clara. Under the provisions of the Municipal NPDES permit, redevelopment projects that disturb more than 10,000 square feet are required to design and construct storm water treatment controls to treat post-construction storm water runoff. The permit requires the post-construction runoff from qualifying projects to be treated by using Low Impact Development (LID) treatment controls, such as biotreatment facilities. The Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) assists co-permittees, such as the city of Santa Clara, in the implementation of the provisions of the Municipal NPDES permit. In addition to water quality controls, the Municipal NPDES permit requires all new and redevelopment projects that create or replace one 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 at least 65 percent impervious (per the city of Santa Clara Hydromodification Management Applicability Map). The project site is located in a catchment area with imperviousness greater than 65 percent; thus, the project site is not

subject to the SCVURPPP hydromodification requirements.

Federal Emergency Management Agency Flood Insurance Program. The magnitude of flood used nationwide as the standard for floodplain management is a flood having a probability of occurrence of one percent in any given year. This flood is also known as the 100-year flood, or base flood. The FIRM is the official map created and distributed by FEMA for the National Flood Insurance Program that shows areas subject to inundation by the base flood for participating communities. FIRMs contain flood risk information based on historic, meteorologic, hydrologic, and hydraulic data, as well as open-space conditions, flood control works, and development.

State

State Sustainable Groundwater Management Act. The 2014 Sustainable Groundwater Management Act (SGMA) requires local public agencies and Groundwater Sustainability Agencies (GSAs) in high- and medium-priority basins to develop and implement Groundwater Sustainability Plans (GSPs) or Alternatives to GSPs. GSPs include detailed road maps for how groundwater basins will attain long term sustainability.

The Santa Clara Valley Water District (SCVWD) is the exclusive GSA for the Santa Clara Valley groundwater Subbasin, which contains the proposed project. SCVWD developed a groundwater management plan for the Santa Clara and Llagas Subbasins that is intended to be functionally equivalent to a GSP.

Local

City of Santa Clara Code, Prevention of Flood Damage. Chapter 15.45 of the Santa Clara city code requires that buildings' lowest floor be constructed at least as high as the base flood elevation.

4.10.2 Environmental Impacts

a. Would the project violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Construction and Operation

Less Than Significant Impact. The proposed project would disturb about 6.7 acres of land and would be subject to construction-related storm water permit requirements of California's NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) administered by the SWRCB. Prior to any ground-disturbing construction activity, the applicant must comply with the Construction General Permit, which includes preparation of a Storm Water Pollution Prevention Plan (SWPPP). With implementation of the construction SWPPP, redevelopment of the site would not cause a substantial degradation in the

quality, or an increase in the rate or volume, of storm water runoff from the site during construction. In addition, the Municipal NPDES permit, as well as the SCVURPPP, requires that redevelopment not result in a substantial net increase in storm water flow exiting the project site during operation. As a result, runoff from the project site would not be expected to exceed the capacity of the local drainage system or to significantly contribute to the degradation of storm water runoff quality.

It is possible that up to 10,000 cubic yards of soil would be removed from the site during construction and it is therefore possible to encounter groundwater and make dewatering necessary. If dewatering is necessary, and the discharge is found to be contaminated, the project owner would likely be required to obtain coverage under the VOC and Fuel General Permit (San Francisco RWQCB General Order No. R2-2017-0048 NPDES Permit No. CAG912002). Discharge of uncontaminated water from the dewatering operation to waters of the US within the San Francisco RWQCB's jurisdiction is a permitted activity under the Construction General Permit.

Thus, the project would not be expected to violate water quality standards or waste discharge requirements during construction and operation, and impacts would be less than significant.

b. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Construction and Operation

Less Than Significant Impact. Since the project would be in an area served with imported surface water from the San Francisco Public Utilities Commission (SFPUC), the water supply to the project would not likely be from a groundwater source. The city's Urban Water Management Plan (UWMP) for 2020 shows that the city has sufficient supply to meet the project's demand of 2 AFY of potable water in normal and single dry year scenarios. However, the UWMP shows that the city would have a deficit in a multiple dry year scenario that assumes supply from SFPUC would be interrupted. Under this scenario, the city's supply from SFPUC might be interrupted if certain conditions specified in the interruptible contract between the city and SFPUC are met (UWMP 2020). If supply from SFPUC is interrupted, the city would have to replace the demand using groundwater or water supplied by SCVWD.

According to the UWMP, the groundwater basin has been managed successfully to prevent overdraft conditions. In case of a water supply shortage, the city has adopted water conservation policies to reduce demand such that available supplies are sufficient to meet demand (UWMP 2020). As discussed in **Section 4.18, Utilities and Service Systems**, the project does not meet the definition of a "project" for the purposes of preparing a Water Supply Assessment (WSA) by the water supplier. The project is similar

to the Walsh Data Center (exempted by the Energy Commission in August 2020) in terms of total square footage but is expected to use less water. The city of Santa Clara determined that the Walsh Data Center project did not require a WSA, so a similar determination would be expected for the CA3 Data Center project (Walsh 2019b, Appendix E). The project's impact on groundwater supplies or recharge during construction and operation would therefore be less than significant.

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 substantial erosion or siltation on- or off-site*;*

Construction, Operation, and Maintenance

Less Than Significant Impact. The existing site is nearly completely covered with impervious surfaces and includes storm water collection and disposal facilities throughout the parcel. The proposed project would result in a reduction in impervious areas (by replacing some of the existing impervious areas with pervious ones for landscaping) and would also include a new storm water collection system that would incorporate source control and treatment best management practices (BMPs). These BMP's would reduce the overall runoff into the city's collection system, also reducing erosion and sedimentation impacts. This post-construction design would therefore not be expected to result in increased runoff (rate or volume) from the site. The storm water design is expected to comply with the BMP's well, by implementing measures to ensure the project would not result in a substantial net increase in storm water flow exiting the project site or alter local runoff drainage patterns during project construction. Therefore, impacts would be less than significant.

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

Construction and Operation

Less Than Significant Impact. Surface runoff would be controlled as described in section (c)(i) above. Therefore, impacts would be less than significant.

iii. Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff; or

Construction and Operation

Less Than Significant Impact. The proposed project would result in a reduction in impervious areas and would also include a new storm water collection system that includes drainage swales to reduce the overall runoff into the city's collection system. The

discharge of polluted runoff would be expected to be similarly reduced. Therefore, impacts would be less than significant.

iv. Impede or redirect flood flows?

Construction and Operation

Less Than Significant Impact. Though the site is located near the Guadalupe River and San Tomas Aquino Creek, these waterways do not pose a likely flood risk. According to FIRM 06085C0226H, effective May 18, 2009, the project site is located within Zone X. As described above, Zone X is expected to be protected from the 100-year flood.

The project site is not within an area mapped as vulnerable to sea level rise in the National Oceanic and Atmospheric Administration's Digital Coast, Sea Level Rise Viewer (NOAA 2021).

The proposed project also would not be expected to add significantly to the existing potential of the site to impede flood flows. The proposed project would have significant structures, like the existing site did, that would similarly impede or redirect flood flows. Therefore, no net change in obstruction is expected from the proposed project and the impacts would be less than significant.

d. Would the project, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Construction and Operation

Less Than Significant Impact. The project site is located within FEMA flood Zone X and not subject to inundation by the 100-year flood. The project is therefore not expected to be a source of pollution from flooding.

The project site is not within an area mapped as vulnerable to sea level rise in the National Oceanic and Atmospheric Administration's Digital Coast, Sea Level Rise Viewer (NOAA 2021).

The project site is not located near a large body of water, the ocean, or steep slopes. Due to the location of the proposed project site, it would not be subject to inundation by seiche, tsunami, or mudflow (CEMA 2009).

The project site is within the inundation zones of two upstream reservoirs. Lexington Reservoir and James J. Lenihan Dam are located on Los Gatos Creek approximately 15 miles upstream. The Lenihan Dam Flood Inundation Map shows that dam failure would result in flooding at the project site.

In the unlikely event of a flood, release of on-site pollutants would be prevented by the SWPPP, Worker Environmental Training, a Spill Prevention, Control, and Countermeasure Plan, a Hazardous Materials Business Plan, and through an emergency spill response

program. All of these measures would work together to help keep potential pollutants properly contained. Therefore, the impacts 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?

Construction and Operation

Less Than Significant Impact. The Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) is the local water quality control plan. The project would comply with the Basin Plan by implementing the requirements of the Construction General Permit, as described in section (a) above, and through the preparation of a construction SWPPP. The project would not be expected to obstruct the implementation of the local water quality control plan and this impact would be less than significant.

SCVWD developed a groundwater management plan for the Santa Clara and Llagas Subbasins that is intended to be functionally equivalent to a GSP. The information contained in the SCVWD groundwater management plan is used to inform the city of Santa Clara's UWMP about groundwater supplies. Therefore, it is reasonable to rely on the UWMP to evaluate how a proposed project would impact the implementation of the sustainable groundwater management plan. The city's UWMP for 2020 shows that it has sufficient supply to meet the project's demand of 2 AFY of potable water in normal and single dry year scenarios. However, the UWMP also shows that the city would have a deficit in a multiple dry year scenario that assumes that supply from SFPUC would be interrupted. Under this scenario, the city's supply from SFPUC might be interrupted if certain conditions specified in the interruptible contract between the city and SFPUC are met (UWMP 2020). If supply from SFPUC is interrupted the city would have to replace the demand using groundwater or supply water from SCVWD.

According to the UWMP, the groundwater basin has been managed successfully to prevent overdraft conditions. In case of a water supply shortage, the city has adopted water conservation policies to reduce demand such that available supplies are sufficient to meet demand (UWMP 2020). The proposed project would therefore not be expected to impede the implementation of the SCVWD's groundwater management plan. This impact would be less than significant.

4.10.3 Mitigation Measures

None.

4.10.4 References

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4.11 Land Use and Planning

This section describes the environmental setting and regulatory background and discusses impacts associated with the construction and operation of the project specific to land use and planning.

LAND USE AND PLANNING Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Physically divide an established community?	☐	☐	☐	☒
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

Environmental checklist established by CEQA Guidelines, Appendix G.

4.11.1 Environmental Setting

The project site is located within one of the city of Santa Clara's (city) primary employment centers that extends south of U.S. Highway 101 and north of the Caltrain corridor. Land use classifications within this employment center region primarily include Light/Heavy Industrial and Office/Research and Development uses (Santa Clara 2021a). The project would utilize a 6.69-acre site (APN 216-28-112) that is zoned Light Industrial (ML) and is currently developed with a 115,000-square-foot office and warehouse building. Land uses that surround the project site include the following (Santa Clara 2021a):

- North-northeast of project site: Vantage Santa Clara Data Center Campus CA1 at 2625 Walsh Avenue (ML zoning district);
- East-southeast of project site: existing ML uses (software development and telecommunications equipment supplier) at 2550 Walsh Avenue (ML zoning district);
- South-southwest of project site: Caltrain corridor along the project site's southern boundary, which separates the project site from Medium-Density Residential development located approximately 150 feet south of the project;
- West of project site: Silicon Valley Power's (SVP) Uranium Substation at 2747 Bowers Avenue (Public or Quasi-Public zoning district);
- Northwest of project site: KeyPoint Credit Union at 2805 Bowers Avenue (ML zoning district); and
- North-northwest of project site: existing Office/Research and Development uses at 2630 Walsh Avenue (ML zoning district).

The Norman Y. Mineta San Jose International Airport (San Jose International Airport) is located approximately 1.75 miles east of the project site. Per the Comprehensive Land Use Plan for the San Jose International Airport, the project site is outside of the Airport Influence Area (Santa Clara County 2016).

Regulatory Background

Federal

No federal regulations relating to land use and planning apply to the project.

State

No state regulations relating to land use and planning apply to the project.

Local

City of Santa Clara 2010-2035 General Plan. The project would be in an area of the city between U.S. Highway 101 and the Caltrain corridor that has been designated in the City of Santa Clara 2010-2035 General Plan (general plan) as primarily industrial (Santa Clara 2010). The city's industrial land use designation is used to identify areas that serve as major employment centers for the city. Industrial land use designations are located away from sensitive receptors to prevent their exposure to hazardous materials commonly used in manufacturing and warehousing. Data centers are identified as a light industrial land use (Santa Clara 2010).

Section 5.3.5 of the general plan contains the following policies that pertain to industrial land uses and are applicable to the project:

- 5.3.5-P6 – Encourage innovative design of new office space to promote higher-intensity new development and on-site expansion of existing uses.
- 5.3.5-P12 – Promote development, such as manufacturing, auto services and data centers, in Light and Heavy Industrial classifications to compliment employment areas and retail uses.
- 5.3.5-P14 – Prohibit Data Centers from properties designated High Intensity Office/Research and Development except as support to the primary use on the property.

Section 5.9 of the general plan contains the following public facilities policy that is applicable to the proposed on-site switching station.

- 5.9.2-P9 – Prohibit new public and quasi-public facilities on land designated for Light or Heavy Industrial uses on the Land Use Diagram (general plan figure 5.2-1), excluding public utility facilities.

Floor area ratio (FAR) of a development is the total square footage of a building(s) on a lot divided by the total lot area. The general plan identifies an FAR of 0.6 for a light industrial land use. However, Section 5.5.1 of the general plan contains the following

discretionary use policy that provides flexibility in the density of specific land uses, such as a data center, provided that the permitted land use supports the General Plan's Major Strategies.

- 5.5.1-P9 – For Data Centers on Light or Heavy Industrial designated properties, allow a 20 percent increase in the maximum allowed non-residential square-footage, provided that sufficient onsite land area is available to meet the parking requirements for other uses allowed under those designations, and provided that the increased intensity is compatible with planned uses on neighboring properties and consistent with other applicable General Plan policies.

City of Santa Clara Zoning Code. The entire project site is within an ML zoning district, which "is intended to provide an optimum general industrial environment, and it is intended to accommodate industries operating substantially within an enclosed building" (city of Santa Clara 2021b).

Permitted Uses: Permitted uses within an ML zoning district include the following (City Code Section 18.48.030):

- Plants and facilities for the assembly, compounding, manufacture, packaging, processing, repairing, or treatment of equipment, materials, merchandise, or products.
- Incidental and accessory buildings, storage buildings, outdoor storage, warehouses, exposed mechanical appurtenances, and the like, that comprise less than 25% of the total lot area and are shielded from public view.

Development Standards: The following development standards are applicable to the ML zoning district:

- Building Height Limits – Maximum permitted height within an ML zoning district shall not exceed 70 feet (City Code Section 18.48.070). Height requirements shall also be subject to the following additional requirements, conditions, and exceptions (City Code Section 18.64.010):

  (a) The height limitations do not apply to spires, belfries, cupolas, antennas, water tanks, ventilators, chimneys, or other mechanical appurtenances usually required to be placed above the roof level and not intended for human occupancy or to be used for any commercial or advertising purposes.

  (b) The height limitations shall not apply to flagpoles, sculpture, antennas, and radio towers; provided, that the same may be safely erected and maintained at such a height with respect to the surrounding conditions and circumstances.

- Maximum Building Coverage – The maximum building coverage within an ML zoning district is 75%, subject to required parking, landscaping, and setback (City Code Section 18.48.110).

  Front yard – Each lot shall have a street side front yard of not less than 15 feet in depth (City Code Section 18.48.080).

Side yards – Side yards are required for every lot that is adjacent to a residentially zoned property or property designated as residential in the general plan. Each such side yard shall be not less than ten feet in width (City Code Section 18.48.090).

Rear yard – A rear yard is required for each portion of a lot that is adjacent at rear of lot to a residentially zoned property or property designated as residential in the general plan. Such rear yard shall be not less than ten feet in depth (City Code Section 18.48.100).

- Outdoor Storage and Exposed Mechanical Equipment – Outdoor storage and exposed mechanical equipment shall not exceed six feet in height within the first six feet immediately adjacent to the front or street side yard setback line or any interior side or rear lot line. Beyond this point, storage may extend to a maximum height of ten feet. Height of mechanical equipment and any accompanying screening shall be subject to Director of Community Development approval (City Code Section 18.48.140).

The city's Zoning Administrator has the authority to grant a minor modification to height, area, and yard regulations, provided that the minor modification does not exceed 25% of any zoning requirement (City Code Section 18.90.020). If a project were to exceed a 25% threshold of any zoning requirement, the project would require variance approval by the Planning Commission at a noticed public hearing (City Code Chapter 18.108).

Comprehensive Land Use Plan, Norman Y. Mineta San Jose International Airport. The Santa Clara County Airport Land Use Commission (ALUC) adopted the Comprehensive Land Use Plan (CLUP) for the San Jose International Airport in 2011; the ALUC approved minor amendments to the CLUP in 2016. The purpose of the CLUP is to safeguard the welfare of the inhabitants in the airport vicinity and ensure that new land uses do not affect airport operations. The project site is outside of the Airport Influence Area, which is a "composite of the areas surrounding the Airport that are affected by noise, height, and safety considerations" (Santa Clara County 2016). The CLUP policies regarding land use and planning do not apply to the project. Therefore, the Land Use and Planning analysis contains no further discussion of the CLUP for the San Jose International Airport.

4.11.2 Environmental Impacts

a. Would the project physically divide an established community?

Construction and Operation

No Impact. The project would be constructed and operated on a single parcel of land that was previously developed for an industrial use. The project would demolish the existing on-site building and construct and operate a new industrial use on the same site. The parcel boundaries would remain the same. The project would not introduce a new barrier or otherwise restrict public access within the community. Neither project construction nor operation activities would 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 land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Construction and Operation

Less Than Significant Impact. As discussed in the subsections that follow, the construction and operation of the project would not conflict with applicable land use plans or policies such that significant environmental impacts would occur. Impacts would be less than significant.

City of Santa Clara General Plan. The project site has a general plan land use designation of ML, which "allows combinations of single and multiple users, warehouses, mini-storage, wholesale, bulk retail, gas stations, data centers, indoor auto-related uses and other uses that require large, warehouse-style buildings" (Santa Clara 2010). The proposed project is an allowable use in areas designated ML.

As described below, the project is also consistent with industrial land use policies applicable to the project:

- Policy 5.3.5-P6 – The project would increase the intensity (i.e., building mass and height) of the existing industrial land use onsite by replacing a single-story 115,000-square-foot building with a four-story 468,170-square-foot building to accommodate the proposed project. As this policy promotes higher intensity of new development and on-site expansion of existing uses, the project would be consistent with this policy.
- Policies 5.3.5-P12 and 5.3.5-P14 – The project would construct a data center within a light industrial land use designation and would, therefore, be consistent with these policies.
- Policy 5.9.2-P9 – The proposed project would include construction of a new, on-site switching station that would be owned and operated by SVP. As a public utility facility, the switching station would not conflict with the site's ML land use designation.

Staff calculated the proposed project's FAR to be 1.61,[1] which exceeds the general plan's maximum FAR of 0.6 for an ML land use designation. Staff spoke with city of Santa Clara Associate Planner Debby Fernandez, who explained that the FAR exceedance would be allowed for a data center as it would be considered a very low employee trip generating use (CEC 2021j). Daily operations at the proposed data center would not conflict with ongoing operations at neighboring properties as the anticipated average number of persons per shift would be no more than 30 employees. To provide sufficient parking for data center operations, the proposed project site would include 30 parking spaces, while

1 The proposed project's building square footage is 468,170 square feet (sq. ft.). The lot area is 6.69 acres, or 291,416 sq. ft. The FAR of a development is the total building square footage divided by the total lot area.

an additional 96 parking places would be provided across Walsh Avenue on the applicant's existing CA1 campus (DayZenLLC 2021bb).

The proposed project is in an identified employment center area that is targeted for intensification of industrial, research, and development uses within the city (Santa Clara 2010). In addition, the proposed project site is in a ML zone. The properties surrounding the proposed project to the north, east, and west are similarly zoned ML, and are developed with compatible uses (i.e., CA1 data center, research and development facility, software development and telecommunications equipment supplier, and a credit union). The Caltrain corridor that is located along the proposed project's southern boundary is not directly accessible via the project site and would not be affected by an increase in the site's land use intensity. Because the proposed project is consistent with the general plan and zoning for the existing industrial site and surrounding area and is consistent with the city's intent for development within the area, the project's increase in intensity over existing conditions would not conflict with the operations of the similar existing industrial land uses on neighboring properties. Therefore, the impact would be less than significant.

City of Santa Clara Zoning Code.

- Building height limits – The height of the proposed data center building would be 87.5 feet from the grade to the highest point of the parapet coping of the flat roof (DayZenLLC 2021z). While this height exceeds the maximum permitted height of 70 feet within an ML zoning district (City Code Section 18.48.070), the city's Zoning Administrator has the authority to grant a minor modification in the permitted height provided that the height does not exceed 25% of the zoning requirement, which would be 87.5 feet within an ML zone (City Code Section 18.90.020). Staff spoke with city of Santa Clara Associate Planner Debby Fernandez, who confirmed that the height requirements would not apply to the proposed mechanical equipment to be placed on the project's rooftop (CEC 2021j). Therefore, the proposed project's height of 87.5 feet would not exceed 25% of the zoning requirement. To obtain a minor modification, the applicant must submit an application to the Zoning Administrator accompanied by plans and elevations necessary to show the detail of the proposed modification to the satisfaction of the Zoning Administrator. The proposed project is currently under review by the city of Santa Clara's project clearance committee, and the applicant will submit any additional application forms, plans, and elevations required by the Zoning Administrator in order to grant a minor modification for the project. Upon issuance of the city's minor modification, the project would not conflict with the height restrictions within an ML zone.
- Maximum building coverage – To comply with the ML zone requirement for a 15-foot landscaped front yard setback, the applicant submitted a revised site plan for the proposed project on July 22, 2021 (DayZenLLC 2021b). City of Santa Clara Associate Planner Debby Fernandez confirmed to staff that the revised site plan would be consistent with the front yard setback requirement (CEC 2021s).
- Exposed Mechanical Equipment – The project's proposed substation would be partially surrounded by a 13-foot-high masonry wall, with the remainder of the substation

enclosed within an eight-foot-high chain link fence. The generator yard would be enclosed within a 25-foot-high perforated metal screen wall along its north, east, and west sides. Per the requirements of City Code Section 18.48.140, the height of mechanical equipment and any accompanying screening shall be subject to Director of Community Development approval. The Architectural Review process would ensure that screening of the generator yard and the substation would conform with ML zoning standards.

4.11.3 Mitigation Measures

None.

4.11.4 References

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4.12 Mineral Resources

This section describes the environmental and regulatory setting and discusses impacts associated with the construction and operation of the project with respect to mineral resources.

MINERAL RESOURCES Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

Environmental checklist established by CEQA Guidelines, Appendix G.

4.12.1 Setting

Information on mineral resources was compiled from published literature, maps, and review of aerial photographs. Impacts to mineral resources from project construction and operational activities were evaluated qualitatively based on the area occupied by the project, site conditions, expected construction practices, anticipated materials used, and the locations and duration of project construction and operational activities.

The project site, located in the City of Santa Clara within Santa Clara County (DayZenLLC 2021), is in an area identified as Mineral Resource Zone 1 (MRZ-1) for aggregate materials by the State of California (DOC 2015). MRZ-1 refers to an area where available geologic information indicates that no significant mineral deposits are present, or where it is judged that little likelihood for their presence exists (DOC 2015). The project site and surrounding area are not known to support significant mineral resources of any type. Other than the Communication Hill Area, located about 10 miles southeast of the project site, which contains mineral deposits that are of regional significance as a source of constriction aggregate materials, the city of Santa Clara does not have mineral deposits as defined by to the California Surface Mining and Reclamation Act of 1975 (SMARA) (DOC 2016). The Division of Mine Reclamation's list of mines, referred to as the Assembly Bill (AB) 3098 List and regulated under SMARA, identifies four other facilities in Santa Clara County, the closest being the Lexington Quarry (mine ID: 91-43-0006), located about 7.7 miles southwest of the project site (DOC 2016).

Regulatory Background

Federal

No federal regulations related to mineral resources apply to the project.

State

Surface Mining and Reclamation Act. SMARA requires that the State Geologist classify land into MRZ or Scientific Zones according to the known or inferred mineral potential of the land (Pub. Resources Code, §§ 2710-2796).

MRZs are defined as the following (DOC 2015):

- MRZ-1: Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood for their presence exists.
- MRZ-2: Areas where adequate information indicates that significant deposits are present, or where it is judged that a high likelihood for their presence exists. The guidelines set forth two requirements to be used to determine if land should be classified MRZ-2:
    - The deposit must be composed of material that is suitable as a marketable commodity.
    - The deposit must meet threshold value. The projected value (gross selling price) of the deposit, based on the value of the first marketable product, must be at least $5 million (1978 dollars).
- MRZ-3: Areas containing mineral deposits, but their significance cannot be evaluated from available data.
- MRZ-4: Areas where available information is inadequate for assignment to any other MRZ category.

Scientific Zones are defined as areas containing unique or rare occurrence of rocks, minerals, or fossils that are of outstanding scientific significance.

Local

No local regulations related to mineral resources apply to the project.

4.12.2 Environmental Impacts

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?

Construction and Operation

No Impact. The project site is in a developed urban area and does not contain any known or designated mineral resources. Therefore, the project would not result in the loss of availability of a known mineral resource.

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?

Construction and Operation

No Impact. The project site is not delineated in the General Plan or other land use plan as a locally important mineral resource recovery site. Also, the project site is in an area and does not contain any known or designated mineral resources. Therefore, for these reasons the project would not result in the loss of availability of a locally important mineral resource recovery site.

4.12.3 Mitigation Measures

None.

4.12.4 References

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Aggregate Materials in the San Francisco-Monterey Bay Area: Classification of Aggregate Resource Areas: South San Francisco Bay Production-Consumption Region. Author: Melvin C. Stinson, Michael W. Manson and John J. Plappert (1987) Special Report 146. Accessed on: June 17, 2021. Available online at: https://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=mlc

DOC 2016 – California Department of Conservation (DOC). AB 3098 List. This list is updated daily. Accessed on: June 17, 2021. Available online at: https://www.conservation.ca.gov/dmr

4.13 Noise

This section describes the environmental and regulatory setting and discusses impacts associated with the construction and operation of the project related to noise.

NOISE Would the project result in:	**Potentially Significant Impact**	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
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 groundborne vibration or groundborne 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?	☐	☐	☒	☐

Environmental checklist established by CEQA Guidelines, Appendix G.

4.13.1 Environmental Setting

The project site is zoned Light Industrial (ML) (DayZenLLC 2021e, Section 3.6). The area surrounding the project site consists of ML land uses to the north, east, and west. Approximately 150-200 feet to the south-southwest, the Caltrain corridor separates the project site from medium-density residential development. The nearest airport is Norman Y. Mineta San Jose International Airport approximately 1.75 miles east of the project site. The predominant long-term ambient noise sources are nearby and distant traffic, and by cooling and mechanical noise from various facilities. Additionally, noise events that interrupt the ambient noise are caused by trains and loud vehicles occasionally passing by (DayZenLLC 2021e, Section 4.13.2.3).

The applicant conducted noise surveys to characterize ambient noise in the areas surrounding the project site. One long-term, 24-hour survey was conducted from February 8 through February 9, 2021, at the southern boundary of the project site. This location represents the existing noise environment at the nearest residential receptor

directly across the CalTrain line (DayZenLLC 2021e, Section 4.13.2.3). The results of the survey provided average daytime and nighttime ambient noise levels at the residential receptors of approximately 59 and 53 dBA L_{eq}, respectively (DayZenLLC 2021d, Appendix F). The survey also provided the maximum noise level, L_{max}, of approximately 89 dBA at the residential receptor, primarily due to passing trains (DayZenLLC 2021d, Appendix F).

Regulatory Background

Thresholds of Significance

The California Environmental Quality Act (CEQA) Guidelines state that a project would normally be considered to have a significant impact if noise levels conflict with adopted environmental standards or plans, or if noise levels generated by the project would substantially increase existing noise levels at noise-sensitive receivers on a permanent or temporary basis. CEQA does not define what noise level increase would be substantial. Generally, an increase of 3 decibels on the A-weighted scale (dBA) is noticeable and an increase of 5 dBA is distinct. Other factors, such as the frequency of occurrence of the noise and time of day/night it occurs, are also commonly considered in determining if such an increase is clearly significant or not.

There are no adopted thresholds for an increase in dBA level to be considered a significant impact for construction activities. Noise due to construction activities are considered to be less than significant if the construction activity is temporary and the use of heavy equipment and noisy activities is limited to daytime hours. However, an increase of 10 dBA or more during the day can be perceived as noisy (triggering a community reaction) and warrant additional measures to address the noise levels. An increase of 10 dBA corresponds to a doubling of loudness or dBA level and is generally considered to be the starting point at which significant impacts may occur. It is very difficult to identify the exact level of noise resulting from construction because it fluctuates based on many factors over the course of a week, day, or even hour. It also depends on other factors, such as intervening structures, land topography and land cover. For example, intervening structures block or impede sound waves, and undulating topography and land roughness would play a role in attenuating the propagation of noise waves. Therefore, performance standards (i.e., a complaint and redress process) are ultimately used as a backstop measure to address any impacts that are perceived by the community.

In September 2013, the California Department of Transportation (Caltrans) released the Transportation and Construction Vibration Guidance Manual. This manual includes the Federal Transit Administration's (FTA) methods and findings. The Caltrans manual states that for construction activities that generate vibration, the threshold of human response begins at a peak particle velocity (ppv) of 0.16 inch per second (in/sec). This is characterized by Caltrans as a "distinctly perceptible" event with an incident range of transient to continuous (Caltrans 2013). A level of 0.20 in/sec has been found to be annoying to people in buildings and can pose a risk of architectural damage to buildings.

Local

City of Santa Clara 2010-2035 General Plan. The City of Santa Clara 2010-2035General Plan (General Plan) describes the levels of exterior noise considered compatible for various land uses to guide land use planning decisions. The Santa Clara City Code, discussed below, establishes more specific sound limits (Santa Clara 2019). The General Plan also includes several policies that aim to keep noise levels to within acceptable levels and avoid nuisance to residents. The following are General Plan policies applicable to the project:

Policy 5.10.6-P1: Review all land use and development proposals for consistency with the General Plan compatibility standards and acceptable noise exposure levels defined on Table 5.10-1 [of the General Plan].

Policy 5.10.6-P3: New development should include noise control techniques to reduce noise to acceptable levels, including site layout (setbacks, separation and shielding), building treatments (mechanical ventilation system, sound-rated windows, solid core doors and baffling) and structural measures (earthen berms and sound walls).

Policy 5.10.6-P4: Encourage the control of noise at the source through site design, building design, landscaping, hours of operation and other techniques.

Policy 5.10.6-P5: Require noise-generating uses near residential neighborhoods to include solid walls and heavy landscaping along common property lines, and to place compressors and mechanical equipment in sound-proof enclosures.

City of Santa Clara Zoning Code (City Code). Chapter 9.10 (noise ordinance) of the City Code applies to the regulation of noise and vibration for this project. Section 9.10.040 specifies the exterior noise limits that apply to land use zones within the city. The city's exterior noise limit is 75 dBA (anytime) for heavy industrial land use zones, 70 dBA (anytime) for ML land use zones, 65 dBA daytime and 60 dBA nighttime for commercial land use zones, and 55 dBA daytime and 50 dBA nighttime for residential land use zones. The city's noise limits for stationary noise sources are not applicable to emergency work, including the operation of emergency generators during an emergency (Section 9.10.070); however, the intermittent testing of emergency generators is subject to the local noise regulations previously discussed in the City Code (Section 9.10.040).

4.13.2 Environmental Impacts

a. Would the project result in 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?

Construction

Less Than Significant with Mitigation Incorporated. The City Code exempts construction activities from the established noise limits when activities occur during the daytime hours of 7:00 a.m. to 6:00 p.m. Monday through Friday and between 9:00 a.m. to 6:00 p.m. on Saturday (Santa Clara 2021). Two phases of construction activities would occur for a total of 22 months. Phase one would last for about 15 months which includes site work (demo, site prep. grading), construction of the entire building shell and substation, placement of half the generators. Phase two would last 7 months which includes interior buildout of the structure and placement of the other half of the generators. Construction activities for the project would likely utilize equipment that could generate noise levels that exceed ambient noise, such as bulldozers and jackhammers. Construction noise can be significant for short periods of time at any particular location. The highest noise levels would often be generated during grading and excavation, while lower noise levels normally occur during building construction. Large pieces of earth-moving equipment, such as graders, scrapers, and bulldozers, generate noise levels up to 85 to 90 dBA at 50-feet. Typical hourly average construction-generated noise levels are 61 to 90 dBA, measured at 50-feet from the site during busy construction periods. The loudest construction activities (from concrete saw or hydra break ram) can elevate ambient noise levels at the nearest residences by up to 11 dBA. However, noise levels from construction activities would be limited to daytime hours, in compliance with the City Code as discussed below. Additionally, the elevated noise levels from construction activities would be lower than the noise levels from passing trains. Trains pass by four times per hour during peak commute (6 a.m. to 9 a.m. and 4 p.m. to 7 p.m.) and two times per hour during non-peak commute (CalTrain 2021). This can elevate noise levels at residences by up to 30 dBA, intermittently resulting in noise levels as high as 89 dBA L_{max} compared to the existing daytime ambient level of 59 dBA L_{eq}.

As discussed above, an increase of 10 dBA or more during the day can be perceived as noisy (triggering a community reaction) and warrant additional measures to address noise levels. An increase of 10 dBA corresponds to a doubling of loudness or dBA level and is the starting point for significant impacts. Again, the loudest construction activities can elevate the existing ambient noise levels at the nearest residences by up to 11 dBA—average of the loudest construction noise levels, causing noise levels up to 70 dBA compared to the existing daytime ambient level of 59 dBA L_{eq}. The noise levels from construction activities can be a perceived as noisy; however, less noisy than passing trains. Moreover, construction noise would not be heard by the residents to the south of the construction site when trains are passing by (noise levels from passing trains elevates noise levels by 30 dBA).

Two noise sources that produce noise levels that differ by 9 dBA or less can combine to produce an even louder noise level. However, if noise levels differ by 10 or more dBA, they do not combine to produce a louder noise level.

Moreover, performance standards (i.e., a complaint and redress process) are ultimately used as a backstop measure to address any impacts that might be perceived by the community. Therefore, staff proposes **NOI-1**, requiring a complaint and redress process be implemented to ensure construction noise impacts would not be significant, as perceived by the community. With the implementation of **NOI-1**, the project's construction noise impact would be less than significant.

Operation

Less Than Significant Impact. The proposed emergency backup generators (gensets) would provide backup power to the data center buildings in the event of an equipment failure or other conditions resulting in an interruption of the electricity delivered from Silicon Valley Power via Pacific Gas and Electric Company (PG&E) utility lines. The gensets would be enclosed in equipment yards located adjacent to the north side of the building. The General Plan along with the City Code (Section 9.10.040) establish mitigation and noise level performance standards to control noise within the city. The General Plan policy includes goals to minimize operational noise impacts from existing and new industrial and commercial development to protect sensitive land uses from noise intrusions. In accordance with the General Plan, the project's maximum sound level at nearby residential use properties must be 55 dBA during the hours of 7 a.m. to 10 p.m., and 70 dBA, anytime, at nearby ML use properties. However, the City Code does not apply to the operation of the gensets during an emergency, such as the interruption of electricity delivered via PG&E.

The applicant would use gensets that ensure sufficient exhaust silencing and other design measures if required, such that the project meets the City Code noise requirements. The project would include 44 gensets that would be located at the northern end of the project site, the opposite side of the data center building away from the nearby residents and would be housed in acoustically enhanced enclosures. Each genset would be tested only during daytime hours. An 8-foot-high by 200-foot-long wall along the northern property boundary would be installed to mitigate noise levels at adjacent properties. Heating, ventilation, and air conditioning (HVAC) equipment, including chiller plant modules and condensing units, would be located on the rooftop of the data center building, fitted with a "Superior" sound package, and solid barriers extending three feet above the top of the chiller fans. The substation would be surrounded by 15-foot-high walls (DayZenLLC 2021e, Section 4.13.3.1).

The applicant modeled sources of noise for the project using computer aided noise abatement (CadnaA) to assess the impact of its operational activities on nearby noise receptors. Noise modeling was performed for two scenarios: "normal" and "worst-case." Normal operation would primarily consist of the continuous operation of the HVAC equipment and other air-handling units.

The worst-case modeled scenario, under CadnaA, consists of the simultaneous operation of the project in normal mode along with 12 of the gensets closest to the nearest noise receptors. This scenario is only intended for modeling the worst-case noise impact on the adjacent properties and not the typical noise levels during testing and maintenance since the gensets would be tested one at a time. The noise generated during the worst-case scenario would be higher than that during testing and maintenance. The frequency of genset testing would be low (not to exceed 50 hours per engine per year) and testing would only occur during daytime hours (DayZenLLC 2021e, Section 4.6.3.1).

The CadnaA modeling results show that for the normal mode of operation, the noise level at the residential receptor would be anticipated to reach a maximum of 50 dBA L_{eq} (DayZenLLC 2021e, Table 4.13-9). This is below the daytime and nighttime ambient noise levels of 59 dBA and 53 dBA, respectively, at the nearby residential area. At the same location, the project's 50 dBA sound level is below the City Code daytime noise level limit of 55 dBA and does not exceed the City Code nighttime level of 50 dBA L_{eq}. The project's noise level at the nearby industrial receptor would not exceed 56 dBA L_{eq}. This is below the ambient level of 59 dBA L_{eq} at this location and below the City Code noise level limit of 70 dBA L_{eq} for ML uses (CA3 2021, Table 4.13-9).

The results of the CadnaA computer modeling also show that during the worst-case scenario, the modeled equivalent continuous sound level (L_{eq}) at the residential receptors would reach a maximum of 50 dBA. This is the same as normal operation because the gensets are located on the opposite side of the data center building, away from these residences. A 50 dBA noise level is below the daytime and nighttime ambient noise levels of 59 and 53 dBA, respectively. Additionally, it is below the City Code daytime residential noise level limit of 55 dBA L_{eq} and does not exceed the City Code nighttime limit of 50 dBA L_{eq}. Note that this would be due to emergency operation and is, therefore, exempt from the City Code noise limits. The project's noise level at the nearby industrial receptor would not exceed 70 dBA, the City Code limit for ML uses (DayZenLLC 2021e, Table 4.13-10).

In the unlikely event that actual noise emissions are higher than modeling predictions and additional improvements are needed to reduce project noise to acceptable levels (city's allowable limit or existing ambient noise level, whichever is higher), practical and available noise-reducing measures may need to be considered. Examples of measures typically implemented at data centers are listed below.

- Low speed fans.
- Acoustical building panels, tiles, and baffles: These are typically installed inside buildings to reduce internal noise levels.
- Sound dampening server cabinets: These are also used to reduce noise levels inside buildings.

The project would generate 13.2 daily vehicle miles traveled (VMT) per worker for project operations. This is below the city's threshold for VMT and as the permitting agency, the city would ensure project consistency with the General Plan policies related to trip reduction, transit connectivity, and alternative modes of transportation. Thus, the noise impact of vehicle trips associated with the project would be less than significant. See **Section 4.17 Transportation** for more discussion.

The noise impact from project operation would be less than significant.

Noise impacts from project construction and operation would not be in excess of adopted environmental standards or plans.

b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Construction

Less Than Significant Impact. This analysis relies on the vibration thresholds identified by Caltrans to determine the significance of vibration impacts related to adverse human reaction. The threshold of human response begins at a peak particle velocity (PPV) of 0.16 in/sec. Caltrans characterizes this as a "distinctly perceptible" event (Caltrans 2013). A level of 0.20 in/sec has been found to be annoying to people in buildings and can pose a risk of architectural damage to buildings.

Pile driving would not be performed as a method of construction activity for the project, but there would be other construction activities that would generate groundbourne vibrations at the immediate vicinity of the work area.

Jackhammers can cause a groundborne vibration rate of 0.035 in/sec at 25 feet (less than the threshold of human response), and vibratory rollers can cause a groundborne vibration of 0.21 in/sec at 25 feet (Caltrans 2013). The nearest structure to the project construction area is an existing ML building located approximately 60 feet southeast of the project site. A vibratory roller would be used during project construction for paving activities (DayZen LLC 2021e, Section 4.13.3.2). At the nearest noise receptors, the ML building, 0.21 in/sec translates to approximately 0.056 in/sec,[1] less than the threshold of human response to nearby residents or employees. Construction equipment and activities would be similar to those used at similar projects and are not expected to result in rates greater than those noted above. Staff therefore concludes that vibration impacts from project construction would be less than significant.

1 Calculated as: $PPV_{@distance} = PPV_{ref.\ equipment}$ x (ref. distance/distance)^1.5 = 0.21 x (25/60)^1.5 = 0.056 in/sec

Operation

Less Than Significant Impact. Sources of groundborne vibration associated with project operation would include the gensets and rooftop equipment. These pieces of equipment would be well-balanced, as they are designed to produce very low vibration levels throughout the life of a project. In most cases, even when there is an imbalance, they could contribute to ground vibration levels only in the vicinity of the equipment and would be dampened within a short distance. Furthermore, the gensets would be equipped with specifications that ensure sufficient exhaust silencing to reduce vibration. Therefore, vibration impacts due to project operation would be less than significant.

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?

Construction and Operation

Less than Significant Impact. The nearest airport to the project site is the Norman Y. Mineta San Jose International Airport, located approximately 1.75 miles east of the project site. The project site is located outside the Airport Noise Zone (the 65 CNEL[2] contour, as set forth by state law in the Public Utilities Code, section 21601 et. seq), as defined in the Comprehensive Land Use Plan, adopted by the Santa Clara County Airport Land Use Commission, for the airport. The project site is not in the vicinity of a private airport, and it would not place sensitive land uses within the airport noise contour. Thus, the project would not combine with the airport to expose people to excessive noise levels.

4.13.3 Mitigation Measures

NOI-1: The project shall implement the following measures to reduce temporary construction noise to less than significant levels.

- Construction is not permitted during the hours of 6 p.m. to 7 a.m. Monday through Friday, ~~and~~ between 6 p.m. to 9 a.m.<u>,</u> on Saturday<u>, and prohibited on Sundays and holidays</u>.
- Prior to the start of construction, identify a noise control disturbance coordinator. The disturbance coordinator shall be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall determine the cause of any noise complaint received (e.g. starting too early, bad muffler, etc.) and shall

2 CNEL is the average sound level over a 24-hour period, with a penalty of 5 dB added between 7 pm and 10 pm and a penalty of 10 dB added for the nighttime hours of 10 pm to 7 am. CNEL is frequently used in regulations of airport noise impact on the surrounding community.

ensure that reasonable measures warranted to correct the problem are implemented as soon as possible.

- Prior to the start of construction, establish a telephone number for the disturbance coordinator, and post it in a conspicuous location on the construction site.
- Prior to the start of construction, notify, in writing, the residents within 800 feet from the center of the project to the south across the rail line and industrial buildings to the north, east, and west of the project site of the construction schedule~~, in writing,~~ and provide a written schedule of "noisy" construction activities to the adjacent land uses.
- Include the telephone number for the disturbance coordinator construction site in the above notice regarding the construction schedule sent to residences south across the rail line and industrial buildings to the north, east, and west of the project site.
- The project owner shall orient construction equipment and locate construction staging areas within the project site away from the nearest residences to the south, to the extent feasible.
- Equip all construction-related internal combustion engine-driven equipment with the best available noise control equipment (including mufflers, intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds) and use best noise control practices to minimize noise levels from construction activities.

4.13.4 References

Caltrans 2013 – California Department of Transportation (Caltrans). Technical Noise Supplement to the Caltrans Traffic Noise Analysis Protocol, A Guide for Measuring, Modeling, and Abating Highway Operation and Construction Noise Impacts, Division of Environmental Analysis, Environmental Engineering. September 2013. Report No. CT-HWANP-RT-13069.25.3. Accessed on: April 27, 2020. Available online at: http://website.dot.ca.gov/env/noise/docs/tens-sep2013.pdf

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4.14 Population and Housing

This section describes the environmental setting and regulatory background, and discusses impacts associated with the construction and operation of the project specific to population and housing.

POPULATION AND HOUSING Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

Environmental checklist established by CEQA Guidelines, Appendix G.

4.14.1 Environmental Setting

The project is proposed in the city of Santa Clara in Santa Clara County. Nearby cities include San Jose, Campbell, Sunnyvale, and Mountain View. As discussed further below, staff considers the local workers[1] from the greater Bay Area are not likely to temporarily (during construction) or permanently (during operations) move closer to the project. Staff considers the city of Santa Clara and neighboring cities as the primary study area for population and housing-related impacts and the San Jose-Sunnyvale-Santa Clara Metropolitan Statistical Area (MSA), which covers San Benito and Santa Clara counties, as the setting for labor supply for the project.

Population Growth

Table 4.14-1 shows the historical and projected populations for the cities within proximity of the project site, plus Santa Clara County as a whole. Population projections between 2020 and 2040 show growth ranging from 7.8 to 48.2 percent, or 0.4 to 2.4 percent on average per year in the cities within and around the project site.

1 Workers with a greater commute would be considered non-local and would tend to seek lodging closer to the project site (temporarily during construction or permanently during operations).

TABLE 4.14-1 HISTORICAL AND PROJECTED POPULATIONS

Area	2010	2020	2030	2040	Projected Population Change 2020-2040 Percent (%)	Projected Population Change 2020-2040 Percent per Year (%)
Santa Clara	114,115	131,665	142,425	159,500	21.1	1.0
San Jose	958,585	1,028,210	1,189,660	1,377,145	33.9	1.7
Campbell	39,349	43,700	46,170	47,120	7.8	0.4
Sunnyvale	145,225	149,935	162,975	222,210	48.2	2.4
Mountain View	76,360	111,725	119,445	138,980	24.4	1.2
Santa Clara County	1,781,642	1,986,340	2,217,750	2,538,320	27.8	1.4

Sources: ABAG 2019

Housing

Table 4.14-2 presents housing supply data for the project area. Year 2020 housing estimates indicated 31,293 vacant housing units within Santa Clara County representing a vacancy rate of 4.6 percent (CA DOF 2021).

TABLE 4.14-2 HOUSING SUPPLY ESTIMATES IN THE PROJECT AREA

Housing Supply		2021 Total	2021 Vacant
Santa Clara	Number	51,041	2,756
	Percent	100	5.4
San Jose	Number	337,442	12,823
	Percent	100	3.8
Campbell	Number	18,195	1,383
	Percent	100	7.6
Sunnyvale	Number	60,761	2,977
	Percent	100	4.9
Mountain View	Number	37,820	2,610
	Percent	100	6.9
Santa Clara County	Number	680,298	31,294
	Percent	100	4.6

Source: CA DOF 2021

Labor Supply

Table 4.14-3 presents the California Employment Development Department 2018-2028 Occupational Employment Projections for the project's construction occupations in the MSA.

TABLE 4.14-3 PROJECTED EMPLOYMENT GROWTH			
San Jose-Sunnyvale-Santa Clara MSA	**Year 2018**	**Year 2028**	**Percent Change**
Construction Trades Workers	38,350	41,380	7.9
Computer and Information Systems Managers	14,110	15,760	11.7

Source: CA EDD 2021

Regulatory Background

No regulations related to population and housing apply to the project.

4.14.2 Environmental Impacts

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)?

Construction

Less Than Significant Impact. The project would not directly or indirectly induce substantial unplanned growth in the city of Santa Clara. The project does not propose new housing or land use designation changes and it would not facilitate growth through the extension of roads, water supply pipelines, or other growth-inducing infrastructure. While the project includes an emergency backup generating facility, the electricity produced would directly serve the data center if power interruptions occurred and would not be an extension of infrastructure serving customers or entities beyond the boundaries of the project parcel that would result in indirect population growth.

Construction of the first phase would last approximately 14 months. Construction of the second phase and third phase would each take approximately 11 months to complete. Phase I would include a construction workforce with a peak number of workers of approximately 150 per month and an average of approximately 100 per month (Vantage 2021 pg. 2-11). Phase II construction would begin as soon as commercially feasible, likely in late 2023, and take approximately 11 months to complete for commercial operation at the beginning of 2025. The Phase II construction workforce is estimated to have a peak number of workers of approximately 200 per month with an average of approximately 80 per month (Vantage 2021 pg. 2-11).

As shown in **Table 4.14.-3** above, there is a sufficient local construction workforce, with approximately 41,000 construction trades workers projected by 2028, in the project area MSA to accommodate the projected labor needs for construction of the project. The Phase I estimated peak construction workforce of 150 workers per month would account for .003 percent or less of the available projected Construction Trades Workers in the project area MSA. Similarly, the Phase II estimated peak workforce of 200 workers per month would account for .005 percent or less of the available projected Construction Trades Workers in the project area MSA. With a local construction workforce available to serve

the project, it is not expected workers would come from outside the area and no construction workers are expected to seek temporary lodging closer to the project site. Therefore, the project's construction workforce would not directly or indirectly induce substantial population growth in the project area. The impacts would be less than significant.

Operation

Less Than Significant Impact. The applicant anticipates the project would require a total of 19-21 permanent employees, with approximately 10-14 rental space tenant employees visiting the facility daily (Vantage 2021 pg. 4-135). As shown in **Table 4.14.-3**, there is a sufficient local workforce, with approximately 15,000 Computer and Information Systems Managers projected by 2028, in the project area's MSA to accommodate the projected permanent labor needs of the project. The permanent workforce of 21 workers would account for .001 percent or less of the available projected Computer and Information Systems Managers workforce in the project area's MSA. Furthermore, this permanent employment is well within the projected growth in this job sector, as shown in **Table 4.14-3**. Lastly, while the type of rental space tenant employees is not known, the small, anticipated number of employees (10-14 workers) is also not expected to induce substantial population.

If some workers were to relocate to the project area, housing data shows a vacancy rate of 5.4 percent in the city of Santa Clara and 3.8 percent in the nearby city of San Jose (refer to **Table 4.14-2**). Available housing counts in the project area indicate a sufficient supply of available housing units would be available for operations workers should they seek housing closer to the project and would not result in unplanned population growth. Therefore, the project's operations workforce would not directly or indirectly induce substantial population growth in the project area. The impact would be less than significant.

b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Construction and Operation

No Impact. The 6.69-acre property is zoned Light Industrial (ML) and is currently developed with an approximately 115,000-square-foot, single-story office and warehouse building and associated paved surface parking and loading dock. While the existing office and warehouse buildings would be demolished, these structures do not contain any housing. As a result, no people or houses would be displaced and both construction and operation of the project would not require replacement housing to be constructed elsewhere. No impact would occur.

4.14.3 Mitigation Measures

None.

4.14.4 References

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CA3 Backup Generating Facility - Vantage

Final Environmental Impact Report
Part 4 of 4

CALIFORNIA
ENERGY
COMMISSION
Gavin Newsom,
Governor

March 2022
CEC-700-2022-003

DOCKET NUMBER 21-SPPE-01

FINAL ENVIRONMENTAL IMPACT REPORT

CA3 Backup Generating Facility

(21-SPPE-01)

Lead Agency

California Energy Commission

March 2022

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Section 4

Environmental Setting and Environmental Impacts (cont.)

4.15 Public Services

This section describes the environmental setting and regulatory background, and discusses impacts associated with the construction and operation of the project specific to public services. Water supply and treatment services are discussed in the Utilities and Service Systems section.

PUBLIC SERVICES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐

Environmental checklist established by CEQA Guidelines, Appendix G.

4.15.1 Environmental Setting

The proposed project is in the city of Santa Clara (city) within Santa Clara County. Therefore, the study area for public services is the city. Fire protection and related paramedic services for the project site are provided by the Santa Clara Fire Department (SCFD). Police protection services are provided by the Santa Clara Police Department (SCPD). Parks and recreation facilities in the city are provided and maintained by the Santa Clara Department of Parks & Recreation. The project site is within the Santa Clara Unified School District (SCUSD) boundaries.

Fire Protection

The SCFD has 10 stations consisting of eight engines, two trucks, two ambulances, one rescue/light unit, one hazardous materials unit, and one command vehicle (SCFD 2021). The closest fire station to the project site is Station 2, located at 1900 Walsh Avenue, which is approximately 0.8 mile east of the project site.

The SCFD responds to all emergencies within six minutes 90 percent of the time (SCFD 2021).

Police Protection

The SCPD consists of 239 full-time employees and a varying number of part-time or per diem employees, community volunteers, police reserves, and chaplains. Police headquarters are located at 601 El Camino Real, approximately 2.25 miles southeast of the project site (SCPD 2021).

The City of Santa Clara 2010-2035 General Plan (General Plan) identifies the goal of maintaining an average response time of three minutes for all areas of the city (Santa Clara 2010).

Parks, Schools, and Libraries

The nearest public parks to the project site are:

- Bracher Park, located at 2560 Alhambra Drive, directly west of the project site across from, and physically separated by, the Caltrain railroad right of way;
- Bowers Park, located at 2582 Cabrillo Avenue, approximately 0.8 mile south of the project site; and
- Warburton Park, located at 2250 Royal Drive, approximately 1.2 miles south of the project site.

The General Plan identifies a standard of maintaining 2.4 acres of parkland per 1,000 residents (Santa Clara 2010). The General Plan also identifies proposed parkland sites of at least 25 acres to maintain the city's ratio for parkland and serve the demand generated by future residential and employment center development.

The nearest public schools to the project site are:

- Bracher Elementary School, located at 2700 Chromite Drive, approximately 0.25 mile south of the project site;
- Adrian Wilcox High School, located at 3250 Monroe Street, approximately 0.6 mile west of the project site;
- Bowers Elementary School, located at 2755 Barkley Avenue, approximately 0.8 mile south of the project site; and
- Cabrillo Middle School, located at 2550 Cabrillo Avenue, approximately 0.8 mile south of the project site.

The nearest private school (within one mile) to the project site is the Cabrillo Montessori, located at 2495 Cabrillo Avenue.

According to the city's General Plan, SCUSD currently has four closed school sites (three of which are in the city of Santa Clara) that could be used to serve new development (Santa Clara 2010). Alternatively, SCUSD may choose to modify school catchment areas

or add modular classrooms to accommodate new students. SCUSD is also anticipating the construction of new school facilities in north San Jose as a result of an agreement with the city of San Jose and future housing developers.

The nearest library to the project site is the Northside Branch Library, located at 695 Moreland Way, approximately 2.25 miles northeast of the project site.

The General Plan states that new library facilities may be needed to accommodate future development, and the addition of approximately 33,000 residents, anticipated as a result of the implementation of the General Plan, but this need would be evaluated as part of the comprehensive planning process for new residential development (Santa Clara 2010). The General Plan also states that arts, cultural, and community facilities are sufficient to meet future demand particularly when the city can optimize the use of streets or other existing neighborhood amenities for community events.

Regulatory Background

No specific regulations related to public services apply to the project. Prior to issuing land use and building permits, the city requires projects to be reviewed under a development review process, which includes an assessment of a project's consistency and compliance with the city's goals and objectives that are established in the General Plan and Santa Clara City Code, and in other applicable regulations and standards. As part of this process, the Project Clearance Committee (PCC) reviews project applications for completeness and compliance with city standards.

The SCFD, SCPD, and Santa Clara Department of Parks & Recreation are included in the PCC review to determine if project applications are complete and require conditions of approval. These conditions may include revisions to project plans to ensure that the site design incorporates safety and security measures as well as adequate emergency access. The SCFD, SCPD, and Santa Clara Department of Parks & Recreation provided comments and conditions for the proposed project related to fire services, police services, and park facilities at the PCC meetings held on June 22, 2021 (CEC 2021j) and November 2, 2021 (CEC 2021u). The project applicant is currently working to address these comments in an iterative process with the PCC and any conditions deemed necessary through that process will ultimately be folded into any permit issued by the city. Any changes to the project as a result of these conditions would only serve to reduce the project's potential for impacts and would not have the potential to result in a significant adverse impact.

4.15.2 Environmental Impacts

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?

Construction

Less Than Significant Impact. The project would require a large temporary construction workforce. As stated in the application, Phase I of construction would occur over a 14-month period and would require an average of approximately 100 workers per month with a peak number of approximately 150 workers per month (DayZenLLC 2021a). Phase II of construction would occur over an 11-month period and would require an average of approximately 80 workers per month with a peak number of approximately 200 workers per month.

The city is a self-identified employment hub, with approximately 70 percent of employees commuting from residences outside of the city's jurisdiction (Santa Clara 2010). As discussed in section **4.14 Population and Housing**, the anticipated construction workforce for the project would likely be drawn from the San Jose-Sunnyvale-Santa Clara region.[1] Based on the proximity of the available workforce to the project, construction workers from neighboring cities and counties are not likely to temporarily relocate closer to the project site. Therefore, this workforce is unlikely to increase the need for residential area fire services. In addition, any changes to service ratios as a result of the project's construction phases would be temporary and would not require the need for new or physically altered fire protection facilities.

Project construction activities that could pose a risk for fire due to heated exhaust or sparks include the use of welding equipment, grinders, cranes, excavation equipment, vehicles, and bulldozers. AQ-1 requires the project to properly tune and maintain construction equipment in accordance with manufacturer's specifications. Additionally, the use of best practices ensures that construction equipment would be inspected regularly and operated by qualified personnel in compliance with operator manuals and standard safety procedures to minimize the risk of fire. However, the need for fire protection response may increase slightly in the unlikely event that a fire occurs during equipment operation.

Potential effects on the need for fire protection response as a result of the project's construction phases would be temporary and would cease at the end of project construction. In addition, the nearest fire station is relatively close to the project site (0.8 mile away), so that the existing six-minute response time goal mentioned earlier could still be achieved without the need for new or physically altered facilities. Therefore, impacts would be less than significant.

1 Region in this instance is the Metropolitan Statistical Area. A Metropolitan Statistical Area is a geographical area with a population of 50,000 or more, plus adjacent territory that has a high degree of social and economic integration with the core as measured by commuting ties (EDD 2021).

Operation

Less Than Significant Impact. The existing project site includes a 115,000-square-foot, one-story office and warehouse building. While the proposed project includes a larger building (a 468,170-square-foot, four-story building), the operation of the computer servers would not require a substantial number of employees. The project is anticipated to require a total of 19 to 21 permanent employees, with approximately 10 to 14 tenant employees visiting the CA3DC daily (DayZenLLC 2021e). The CA3BGF would not have any dedicated employees. Because the project would require a relatively limited number of permanent employees (approximately 20 employees), any changes to service ratios resulting from project operation would not be substantial.

The project site is currently developed with an office and warehouse that is already served by the SCFD. Therefore, the proposed project would not introduce new residential or business uses that would attract a substantial number of new residents to the project area. Given the availability of an existing workforce throughout the greater Bay Area, the project's permanent employees are likely to currently reside within commuting distance of the project site and would not need to relocate closer to the project. If employees were to move closer to the project, this small increase in population would not create a notable increase in the need for fire protection services.

Project elements that could pose a risk for fire include the operation of the emergency backup generators because of the use of diesel fuel (a flammable liquid) as well as the electrical substation and electricity distribution lines that could overheat and potentially spark fires. Emergency backup generators would run for short periods (i.e., duration and frequency) for testing and maintenance purposes, and would not fully operate unless there is a disturbance or interruption in the utility's electricity supply. The limited operation of the emergency backup generators would minimize the potential fire risk from overheating and sparks and would also minimize the use and handling of the diesel fuel required to operate the emergency backup generators.

The storage and handling of diesel fuel would also be conducted in compliance with safety procedures to minimize the risk of fire. Although a substantial quantity of diesel fuel would be stored on-site, the storage of this fuel would be split among many separate tanks, a portion of which would be stored in the double-walled belly tank beneath each emergency backup generator. Deliveries of diesel fuel by tanker truck during project operation would be scheduled on an as-needed basis. An emergency pump shut-off would be available in case a pump hose breaks during fueling. Other safety features include a 15-foot-high wall that would be installed around much of the electrical substation perimeter to reduce safety and fire hazards. Routine inspections of the electrical substation and electricity distribution lines would be conducted so that any operational issues are addressed to minimize overheating and fire hazards.

To further minimize the need for fire protection response, the project would be designed and constructed in conformance with current building and fire codes. As part of the recent PCC review, the SCFD reviewed the project plans to ensure appropriate

safety features have been incorporated to reduce fire hazards, including the provision of adequate emergency access for firefighting equipment and vehicles (CEC 2021j). As of the November 2, 2021, PCC meeting, the applicant was working with the city regarding the SCFD's requirements, including an emergency vehicle access easement, and the location of on-site power lines. The SCFD will review the final site design and may require conditions of approval prior to the issuance of land use and building permits.

With the implementation of standard safety protocols required by SCFD, potential effects on the need for fire protection response would be substantially minimized. No new or physically altered fire protection facilities would be required for project operation. Therefore, impacts would be less than significant.

ii. Police Protection?

Construction

Less Than Significant Impact. The proposed project's construction phases would not generate substantial population growth in the project area that would result in the need for additional police protection facilities for new residents. Based on the proximity of the available workforce to the project, construction workers from neighboring cities and counties are not likely to temporarily relocate closer to the project site. Therefore, they are unlikely to increase the need for residential area police services. In addition, any changes to service ratios as a result of project construction would be temporary and would not require the need for new or physically altered police protection facilities.

Project construction may result in a slight increase in the need for police response in the event law enforcement is needed at the site. The applicant has indicated that it (contractors) would provide fencing during the construction phase. As part of the recent PCC review, the SCPD reviewed the project plans and is requiring that the property be fenced off during demolition and construction as a safety barrier and deterrent of theft and other crime (CEC 2021j). SCPD is requesting that screening material on the fence allow visual access into the site for police patrol vehicles.

With the implementation of standard safety protocols as required by SCPD, potential effects on the need for police response would be substantially minimized. No new or physically altered police protection facilities would be required for project construction. Therefore, impacts would be less than significant.

Operation

Less Than Significant Impact. Because the project would require a relatively limited number of permanent employees (approximately 20), any changes to service ratios as a result of the project's operation would not be substantial. The project site is developed with a pre-existing office and warehouse that is already served by the SCPD. Therefore, the proposed project would not introduce new residential or

business uses that would attract a substantial number of new residents to the project area.

Given the availability of an existing workforce throughout the greater Bay Area, the project's permanent employees are likely to currently reside within commuting distance of the project site and would not need to relocate closer to the project. If employees were to move closer to the project, this small increase in population would not create a notable increase in the need for police protection services.

To enhance site security and reduce the need for police response, the project would include pole-mounted lighting fixtures along the site perimeter as well as along the perimeter of the CA3BGF utility yard, and outdoor security lighting would be provided along the CA3DC building and driveway entrances. Access to the project site would not be available to the public and would be restricted to persons having business on-site. A security checkpoint for vehicles would be located at the eastern driveway.

As part of the recent PCC review, the SCPD reviewed the project plans and provided comments and conditions of approval related to incorporating safety and security measures into the site design (CEC 2021j). These comments and conditions include:

- Providing vegetation and structures that do not block views or create hiding spaces;
- Installing signage to discourage trespassing and unauthorized parking;
- Incorporating alarm systems, security cameras, and a coded entry system for police access; and
- Ensuring that radio signals do not interfere with police communication.

With the implementation of standard safety protocols as required by SCPD, potential effects on the need for police response would be substantially minimized. No new or physically altered police protection facilities would be required for project operation. Therefore, impacts would be less than significant.

iii. Schools?

Construction and Operation

Less Than Significant Impact. The project would be in the SCUSD. SCUSD Board Policy (BP 7211 Facilities: Developer Fees) allows the Board of Trustees, among other things, to establish, levy, and collect developer fees on residential, commercial, and industrial construction within the district for the purpose of funding the construction or reconstruction of school facilities consistent with Education Code section 17620 and Government Code section 65995 et seq. Government Code section 65995(h) expressly provides that "[t]he payment or satisfaction of a fee, charge, or other requirement levied or imposed pursuant to Section 17620 of the Education Code… are hereby deemed to be full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or

development of real property, or any change in governmental organization… on the provision of adequate school facilities." The current school impact fee for the district is $0.66 per square foot of covered, enclosed commercial/industrial space (SCUSD 2020). Based on the proposed size of the four-story, 468,170-square-foot data center building, an estimated $308,992 would be assessed. These fees would be collected at the time the applicant applies for building permits from the city of Santa Clara; therefore, impacts would be less than significant.

iv. Parks?

Construction

Less Than Significant Impact. Based on the proximity of the available workforce to the project, construction workers from neighboring cities and counties are not likely to temporarily relocate closer to the project site. Therefore, the construction workers are very unlikely to increase levels of residential area park use. Temporary construction workers may visit park facilities before, during, or after a workday, but this would be a short-term use, if any, that would cease at the end of the project's construction. Although Bracher Park is located directly west of the project site, the project site has no direct access to the park. The entrance to Bracher Park is approximately one mile from the site. Furthermore, the presence of a Caltrain railroad right of way between the project site and the park makes increased park use by potential users from this project highly unlikely. No new or physically altered park facilities would be required for the project's construction. Therefore, impacts would be less than significant.

Operation

Less Than Significant Impact. The proposed project would not generate substantial population growth in the project area that would result in the need for additional park facilities for new residents. The project is not a residential project, and, therefore, developed parkland and recreational amenities are not required under the city's Park and Recreational Land ordinance (CEC 2021j). Employees at the project site may visit parks in the area, but the limited number of employees (approximately 20 employees) would not substantially increase demand for park facilities or affect service ratios. No new or physically altered park facilities would be required for project operation. Therefore, impacts would be less than significant.

v. Other Public Facilities?

Construction

Less Than Significant Impact. Based on the proximity of the available workforce to the project, construction workers from neighboring cities and counties are not likely to temporarily relocate closer to the project site. Those construction workers would most likely use the public facilities in the communities where they are permanent residents. Temporary construction workers may visit public facilities, such as public

libraries, before, during, or after a workday, but this use would be temporary and would cease at the end of project construction. No new or physically altered public facilities or services would be required for project construction. Therefore, impacts would be less than significant.

Operation

Less Than Significant Impact. The proposed project would not generate substantial population growth in the project area that would result in the need for additional public facilities or services for new residents. Employees at the project site may visit local libraries or other public facilities, but the limited number of employees (approximately 20 employees) would not substantially increase demand for public facilities. No new or physically altered public facilities would be required for project operation. Therefore, impacts would be less than significant.

4.15.3 Mitigation Measures

None.

4.15.4 References

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