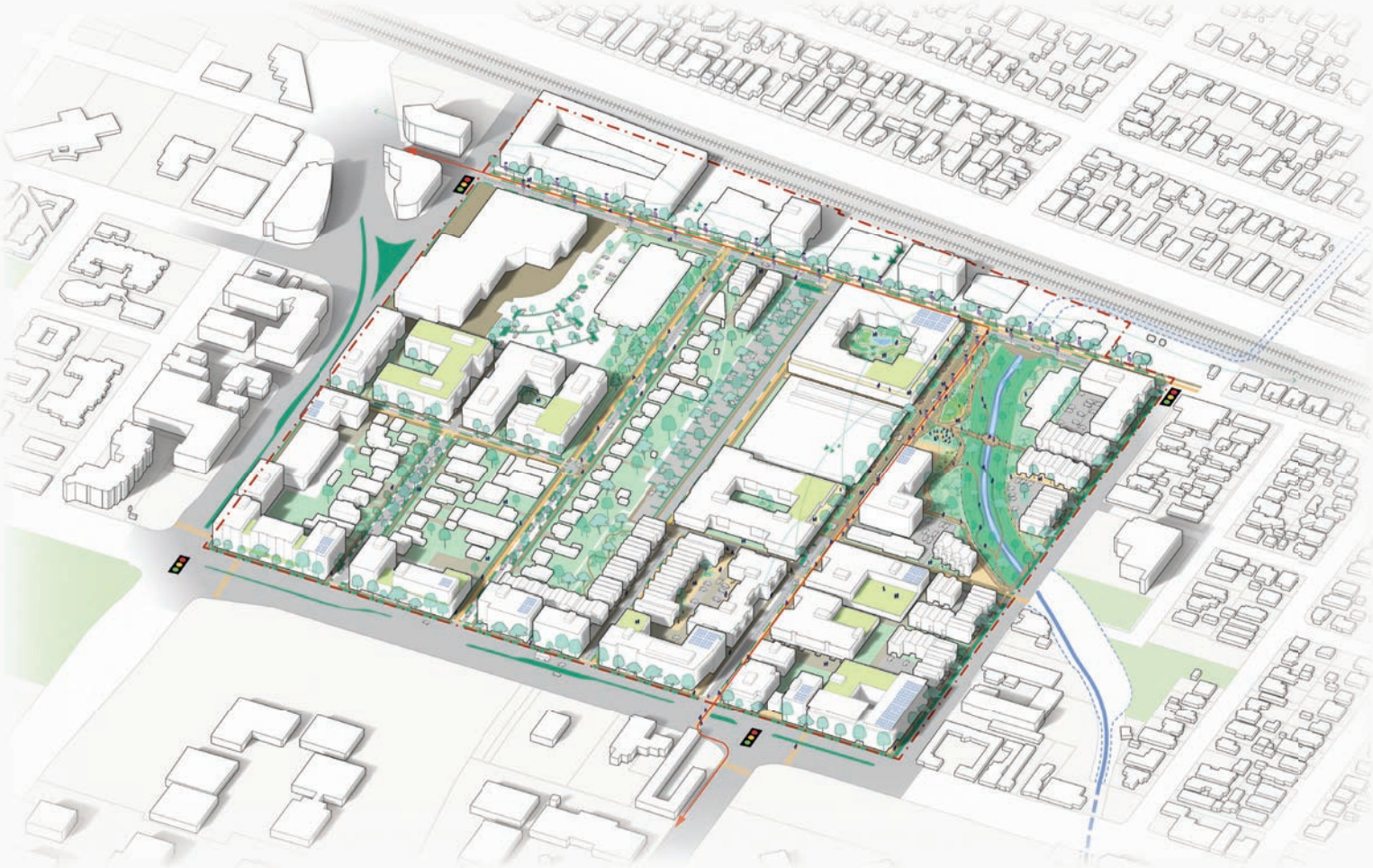
Draft Supplemental EIR

North Ventura Coordinated Area Plan

SCH #: 2023020691



Prepared by

CITY OF PALO ALTO

In Consultation with

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March 2024

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Summary

The City of Palo Alto, as the Lead Agency, has prepared this Draft Supplemental Environmental Impact Report (SEIR) to the 2030 Comprehensive Plan Update Environmental Impact Report (EIR)[1] for the North Ventura Coordinated Area Plan (NVCAP) in compliance with the California Environmental Quality Act (CEQA) and the CEQA Guidelines.

As the CEQA Lead Agency for this project, the City of Palo Alto is required to consider the information in this EIR along with any other available information in deciding whether to approve the project. The basic requirements for an EIR include discussions of the environmental setting, significant environmental impacts including growth-inducing impacts, cumulative impacts, mitigation measures, and alternatives. It is not the intent of an EIR to recommend either approval or denial of a project.

Summary of Project Location and Description

The NVCAP encompasses approximately 60 acres, roughly bounded by Oregon Expressway/Page Mill Road, El Camino Real, Lambert Avenue, and the Caltrain rail corridor. The NVCAP area includes a large housing opportunity site, which was formerly occupied by Fry's Electronics, as well as a mix of small and large businesses and single-family residences. Nearby neighborhoods include the Mayfield neighborhood to the west, the Midtown neighborhood to the north across the train tracks, and Stanford Research Park to the south. Approximately 70 percent of the NVCAP area is located within the California Avenue Priority Development Area (PDA).

The City of Palo Alto adopted its 2030 Comprehensive Plan in November 2017, which is the primary tool for guiding preservation and development in Palo Alto. The NVCAP reflects community values and provides a collective vision that guides preservation, growth, and change. The NVCAP area is a part of the California Avenue Multi-Neighborhood Center. A multi-neighborhood center is defined as retail shopping centers or districts that serves more than one neighborhood with a diverse mix of uses, including retail, service, office, and residential. Program L4.10.1 directs staff to prepare a coordinated area plan for the North Ventura area and surrounding California Avenue area.

The NVCAP includes land use policies and programs that would allow up to an additional 530 residential units and approximately two acres of new public open space within the NVCAP area. While new commercial and office space is expected in the NVCAP area, there would be an overall net decrease in commercial space compared to existing conditions with build out of the NVCAP to accommodate the new residential development. The NVCAP would result in a net reduction of up to 278,000 square feet of office and up to 7,500 square feet of retail.

[1] City of Palo Alto. *Comprehensive Plan Update Final EIR for the City of Palo Alto*. State Clearinghouse (SCH) # 2014052101. August 30, 2017.

Summary of Significant Impacts

The following is a summary of the significant impacts and mitigation measures addressed within this Draft SEIR. The project description and full discussion of impacts and mitigation measures can be found in Section 2.0 Project Information and Description and Section 3.0 Environmental Setting, Impacts, and Mitigation. The analysis in the EIR concluded that the implementation of the NVCAP would result in significant and avoidable impacts from 1) plan-level operational criteria air pollutant emissions and 2) demolition of historic buildings. These impacts are identified in the EIR as follows:

Significant Impact	Mitigation Measures
Air Quality	
Impact AIR-1: Build out of the NVCAP would increase VMT and daily trips by six and 12.2 percent, respectively, and increase the service population by 4.1 percent. Since the increase in population would be exceeded by the increase in VMT and daily trips, the NVCAP would have a significant criteria air pollutant emissions impact.	**MM AIR-2a:** The City shall amend its local CEQA Guidelines and Municipal Code to require, as part of the development approval process, that future development projects comply with the current BAAQMD basic control measures for reducing construction emissions of PM_{10} (Table 8-2, Basic Construction Mitigation Measures Recommended for All Proposed Projects, of the BAAQMD CEQA Guidelines). **MM AIR-2b:** The City shall amend its local CEQA Guidelines to require that, prior to issuance of construction permits, development project applicants that are subject to CEQA and have the potential to exceed the BAAQMD screening criteria listed in the BAAQMD CEQA Guidelines shall prepare and submit to the City of Palo Alto a technical assessment evaluating potential project construction related air quality impacts. The evaluation shall be prepared in conformance with BAAQMD methodology in assessing air quality impacts. If construction-related criteria air pollutants are determined to have the potential to exceed the BAAQMD thresholds of significance, as identified in the BAAQMD CEQA Guidelines, the City of Palo Alto shall require that applicants for new development projects incorporate mitigation measures (Table 8-2, Additional Construction Mitigation Measures Recommended for Projects with Construction Emissions Above the Threshold, of the BAAQMD CEQA Guidelines or applicable construction mitigation measures subsequently approved by BAAQMD) to reduce air pollutant emissions during construction activities to below these thresholds. These identified measures shall be incorporated into all appropriate construction documents (e.g., construction management plans) submitted to the City. **MM AIR-2c:** To ensure that development projects that have the potential to exceed the BAAQMD screening criteria air pollutants listed in the BAAQMD CEQA

Significant Impact	Mitigation Measures
	Guidelines reduce regional air pollutant emissions below the BAAQMD thresholds of significance, the proposed Plan shall include policies that require compliance with BAAQMD requirements, including BAAQMD CEQA Guidelines. **MM AIR-2d:** Implement Mitigation Measure TRANS-1a and Trans 1b. In addition, to reduce long-term air quality impacts by emphasizing walkable neighborhoods and supporting alternative modes of transportation, the proposed Plan shall include policies that achieve the following: • Enhanced pedestrian and bicycle connections between commercial and mixed-use centers. **MM TRANS-1a:** Adopt a programmatic approach to reducing motor vehicle traffic, with the goal of achieving no net increase in peak-hour motor vehicle trips from new development, with an exception for uses that directly contribute to the neighborhood character and diversity of Palo Alto (such as ground floor retail and below-market-rate housing). The program should, at a minimum, require new development projects above a specific size threshold to prepare and implement a Transportation Demand Management (TDM) Plan to achieve the following reduction in peak-hour motor vehicle trips from the rates included in the Institute of Transportation Engineers' Trip Generation Manual for the appropriate land use category and size. These reductions are deemed aggressive, yet feasible, for the districts indicated. • 45 percent reduction in the Downtown district • 35 percent reduction in the California Avenue area • 30 percent reduction in the Stanford Research Park • 30 percent reduction in the El Camino Real Corridor • 20 percent reduction in other areas of the city TDM Plans must be approved by the City and monitored by the property owner or the project proponent on an annual basis. The Plans must contain enforcement mechanisms or penalties that accrue if targets are not met and may achieve reductions by contributing to citywide or employment district shuttles or other proven transportation programs that are not directly under the property owner's control.

Significant Impact	Mitigation Measures
	MM TRANS-1b: Require new development projects to pay a Transportation Impact for all those peak-hour motor vehicle trips that cannot be reduced via TDM measures. Fees collected would be used for capital improvements aimed at reducing motor vehicle trips and motor vehicle traffic congestion.
Impact BIO-1: Construction activities associated with build out of the NVCAP could result in the loss of fertile eggs, nesting raptors or other migratory birds, or nest abandonment. **(Less than Significant Impact with Mitigation Incorporated)**	**MM BIO-1.1** Construction During Migratory Bird and Raptor Nesting Season. To the extent feasible, construction activities shall be scheduled to avoid the nesting season. If construction activities are scheduled to take place outside the nesting season, all impacts to nesting birds protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code shall be avoided. The nesting season for most birds in Santa Clara County extends from February 1 through August 31. If initial site disturbance activities, including tree, shrub, or vegetation removal, are to occur during the bird breeding season (February 1 through August 31), a qualified biologist shall conduct a pre-construction survey for nesting migratory birds and raptors. The survey for nesting migratory birds shall cover the project site itself and the immediate vicinity of the site, with the survey for nesting raptors encompassing the site and surrounding lands within 250 feet, where accessible. The survey shall occur within seven days prior to the onset of ground disturbance. If active nests are detected, appropriate construction-free buffers shall be established. The buffer sizes shall be determined by the project biologist based on species, topography, and type of activity occurring in the vicinity of the nest. Typical buffers are 25 to 50 feet for passerines[2] and up to 250 feet for raptors. The project buffer shall be monitored periodically by the project biologist to ensure compliance. After the nesting is completed, as determined by the biologist, the buffer shall no longer be required. Following the conclusion of nesting activity and removal of the construction buffers, a report shall be submitted to the City summarizing the results of the survey including identifying any buffer zones, and outlining measures implemented to prevent impacts to nesting birds.

[2] Refers to smaller perching birds.

Significant Impact	Mitigation Measures
Cultural Resources	
Impact CUL-1: Future projects proposed under the North Ventura Coordinated Area Plan could result in the demolition of historic buildings, including yet identified historic resources as defined in CEQA Guidelines Section 15064.5. **(Significant Unavoidable Impact)**	Consistent with Comprehensive Plan Policy L-7.2, future development projects that would demolish a potential historic resource shall be required to implement the following mitigation measures. **MM CUL-1.1:** Prior to project approval, future development projects that would demolish a potential historic resource shall be required to prepare a Historic Resource Evaluation (HRE) to evaluate whether the property is eligible for inclusion into the City's Historic Resources Inventory, CRHR, and NRHP. The HRE shall address the feasibility of avoiding adverse impacts through project redesign, rehabilitation, or reuse of the resource. Preservation in place is always the preferred measure for mitigating direct impacts to historic resources. If the resource is to be preserved on the property, specific measures to protect the integrity of the structure and its setting shall be identified. **MM CUL-1.2:** If impacts to the historic resource cannot be avoided, all feasible measures are required to be implemented to reduce the magnitude of the impact. At a minimum, the City shall require "Documentation" and "Commemoration" efforts in accordance with the guidelines established for Historic American Building Survey (HABS) consistent with the Secretary of Interior's Standards for Architectural and Engineering Documentation. Additional measures could include relocation, incorporation of the resources into the project, and/or salvage. The documentation shall be completed by a qualified architectural historian or historian who meets the Secretary of the Interior's Professional Qualification Standards for History and/or Architectural History.
Noise	
Impact NOI-1: Construction activities associated with build out of the NVCAP could generate groundborne vibration capable of causing cosmetic or worse building damage or adversely affecting nearby sensitive receptors. **(Less than Significant Impact with Mitigation Incorporated)**	The following mitigation measure is prescribed in accordance with the requirements of the Comprehensive Plan. **MM NOI-1.1:** Applicants for projects within the North Ventura Coordinated Area Plan area shall obtain a groundborne vibration study prior to the issuance of any discretionary permits that would allow the use of construction equipment within 22 feet or pile driving within 101 feet of existing structures. The study shall be prepared by a qualified professional in accordance with industry-accepted methodology, which include the recommended vibration assessment procedure and thresholds provided by public agencies such as

Significant Impact	Mitigation Measures
	Caltrans and the Federal Highway Administration. The study should identify necessary construction vibration controls to reduce both human annoyance and the possibility of cosmetic damage. Controls shall include, but not be limited to, the following measures: • A list of all heavy construction equipment to be used for this project known to produce high vibration levels (tracked vehicles, vibratory compaction, jackhammers, hoe rams, etc.) shall be submitted to the City by the contractor. This list shall be used to identify equipment and activities that would potentially generate substantial vibration and to define the level of effort for reducing vibration levels below the thresholds. • Place operating equipment on the construction site as far as possible from vibration-sensitive receptors. • Use smaller equipment to minimize vibration levels below the limits. • Avoid using vibratory rollers and tampers near sensitive areas. • Select demolition methods not involving impact tools. • Modify/design or identify alternative construction methods to reduce vibration levels below the limits. • Avoid dropping heavy objects or materials.
Tribal Cultural Resources	
Impact TCR-1: Future projects proposed under the North Ventura Coordinated Area Plan could potentially result in impacts to undiscovered tribal cultural resources. **(Less than Significant Impact with Mitigation Incorporated)**	Future discretionary projects with the Plan Area that are not exempt from CEQA shall implement the following mitigation measures to reduce impacts to archaeological resources that may be present on-site. **MM TCR-1.1: Cultural Sensitivity Training.** Prior to issuance of any grading permit, the project applicant shall be required to submit evidence that a Cultural Awareness Training program has been provided to construction personnel. The training shall be facilitated by a qualified archaeologist in collaboration with a Native American representative registered with the Native American Heritage Commission for the City of Palo Alto and that is traditionally and culturally affiliated with the geographic area as described in Public Resources Code Section 21080.3. **MM TCR-1.2: Sub-Surface Monitoring.** Prior to issuance of any tree removal, grading, demolition, and/or building permits or activities, the applicant shall notify the Director of Planning, of grading and construction dates and activities that require a qualified archeologist and Native American monitor to

Significant Impact	Mitigation Measures
	be present on the project site. The City shall then notify the tribe via email correspondence 10 days prior to any grading or construction activities. If the tribe chooses not to send a monitor or does not respond within the 10 days, work shall continue without the monitor. A qualified archaeologist and a Native American monitor, registered with the Native American Heritage Commission for the City of Palo Alto and that is traditionally and culturally affiliated with the geographic area as described in Public Resources Code Section 21080.3, shall be present during earthmoving activities including, trenching, initial or full grading, scraping or blading, lifting of foundation, boring, drilling, , or major landscaping. The qualified archaeologist and Native American monitor shall have the authority to halt construction activities in the event any cultural materials are encountered during ground-disturbing construction activities. The qualified archeologist and Native American monitor shall keep a daily monitoring log on days that monitoring occurs documenting construction activities that were monitored, location of the monitoring, and any cultural materials identified. These daily monitoring logs shall be made available to the City upon request. **MM TCR-1.3: Treatment Plan.** In the event any significant cultural materials are encountered during construction, construction within a radius of 50 feet of the find would be halted, the Director of Planning shall be notified, and the on-site qualified archaeologist shall examine the find and make appropriate recommendations regarding the significance of the find and the appropriate treatment of the resource. The qualified archeologist in collaboration with a Native American monitor, registered with the Native American Heritage Commission for the City of Palo Alto and that is traditionally and culturally affiliated with the geographic area as described in Public Resources Code Section 21080.3, shall prepare and implement a treatment plan that reflects permit-level detail pertaining to depths and locations of excavation activities. The treatment plan shall contain, at a minimum: • Identification of the scope of work and range of subsurface effects (including location map and development plan), including requirements for preliminary field investigations. • Description of the environmental setting (past and present) and the historic/prehistoric background

Significant Impact	Mitigation Measures
	of the parcel (potential range of what might be found). • Monitoring schedules and individuals. • Development of research questions and goals to be addressed by the investigation (what is significant vs. what is redundant information). • Detailed field strategy to record, recover, or avoid the finds and address research goals. • Analytical methods. • Report structure and outline of document contents. • Disposition of the artifacts. • Security approaches or protocols for finds. • Appendices: all site records, correspondence, and consultation with Native Americans, etc. The treatment plan shall utilize data recovery methods to reduce impacts on subsurface resources. The treatment plan must be reviewed and approved by the Director of Planning, or the Director's designee prior to implementation of the plan. **MM TCR-1.3: Evaluation.** The project applicant shall notify the Director of Planning, Native American Monitor, and Archeological Monitor, of any finds during grading or other construction activities. Any historic or prehistoric material identified in the project area during excavation activities shall be evaluated for eligibility for listing in the California Register of Historic Resources as determined by the California Office of Historic Preservation. Data recovery methods may include, but are not limited to, backhoe trenching, shovel test, hand auguring, and hand-excavation. The techniques used for data recovery shall follow the protocols identified in the approved treatment plan. Data recovery shall include excavation and exposure of features, field documentation, and recordation. All documentation and recordation shall be submitted to the Northwest Information Center, and the Director of Planning.

Summary of Alternatives to the NVCAP

CEQA requires that an EIR identify alternatives to the project as proposed. The CEQA Guidelines state that an EIR must identify alternatives that would feasibly attain the most basic objectives of the project, but avoid or substantially lessen significant environmental effects, or further reduce impacts that are considered less than significant with the incorporation of mitigation. A summary of project alternatives follows. A full analysis of project alternatives is provided in Section 7.0 Alternatives Analysis.

Location Alternatives

Location alternatives are frequently considered to reduce the site-specific impacts of a project. A Location Alternative would need to be of similar size to the NVCAP area (approximately 60 acres), within the urban service area of the City, near existing transit, and have the appropriate General Plan land use designation(s). The City proposes the NVCAP in accordance with the Palo Alto Municipal Code Section 19.10 and the Palo Alto 2030 Comprehensive Plan Policy L-1.7 and Program L-4.10, which specifically calls for the preparation of a plan for the North Ventura and surrounding California Avenue area in order to establish the future of the North Ventura area as a walkable neighborhood with multi-family housing, ground-floor retail, a public park, creek improvements, and an interconnected street grid.

The Location Alternative was not considered further because Comprehensive Plan Policy L-1.7 and Program L-4.10, explicitly require preparation of a plan for the North Ventura area.

Preservation Alternative

Under this Alternative, the 340 Portage Avenue property would be preserved and reused in a manner that does not result in any alterations that would compromise the historic integrity of the building. Under this alternative, it is assumed that the building would be limited to existing uses (i.e., retail) since there are very few uses that could utilize the building as it currently is.

Increased Service Population Alternative

Under the Increased Service Population Alternative, the overall density of the NVCAP would be increased by increasing floor area ratios and building heights. Ultimately this alternative was not considered further.

Single-Story Adaptive Reuse Alternative

Under the Single-Story Adaptive Reuse Alternative, the eligible historical resource at 340 Portage Avenue would remain. The interior of the building would be developed with 113 residential units. No additional floors would be added to the building. [3] [4]

The CEQA Guidelines state that an EIR shall identify an environmentally superior alternative. In addition to the No Project Alternatives, the environmentally superior alternative to the proposed project is the Single-Story Adaptive Reuse Alternative. A detailed analysis of the project alternatives is provided in Section 7.0 Alternatives.

[3] City of Palo Alto. *200 Portage Avenue Townhome Project Revised Final Environmental Impact Report/Responses to Comments on the Draft EIR*. SCH# 2021120444. May 2023. Attachment B.

[4] Refer to response 3.8 in the Revised Final Environmental Impact Report/Responses to Comments Document for the 200 Portage Avenue Townhome Project (dated May 2023).

Known Views of Local Groups and Areas of Controversy

Environmental concerns from local residents, property owners, organizations, and/or agencies about the project related to:

- Hazardous Materials
- Historic Resources
- Transportation
- Tribal Cultural Resources

Section 1.0 Introduction and Purpose

1.1 Purpose of the Supplemental Environmental Impact Report

The City of Palo Alto, as the Lead Agency, has prepared this Draft Supplemental Environmental Impact Report (SEIR) to the 2030 Comprehensive Plan Update Environmental Impact Report (EIR)[5] for the North Ventura Coordinated Area Plan (NVCAP) in compliance with the California Environmental Quality Act (CEQA) and the CEQA Guidelines.

The City is preparing the NVCAP (project) in accordance with Palo Alto Municipal Code Section 19.10 and the Palo Alto 2030 Comprehensive Plan Policy L-1.7 and Program L-4.10, which calls for the preparation of a plan for the North Ventura and surrounding California Avenue area in order to establish the future of the North Ventura area as a walkable neighborhood with multi-family housing, ground-floor retail, a public park, creek improvements, and an interconnected street grid.

As described in CEQA Guidelines Section 15121(a), an EIR is an informational document that assesses potential environmental impacts of a proposed project, as well as identifies mitigation measures and alternatives to the proposed project that could reduce or avoid adverse environmental impacts (CEQA Guidelines 15121(a)). As the CEQA Lead Agency for this project, the City is required to consider the information in the SEIR along with any other available information in deciding whether to approve the project. The basic requirements for an EIR include discussions of the environmental setting, significant environmental impacts including growth-inducing impacts, cumulative impacts, mitigation measures, and alternatives. It is not the intent of an EIR to recommend either approval or denial of a project.

1.1.1 Comprehensive Plan Update

On November 13, 2017, the City Council certified the Comprehensive Plan Update Final EIR (FEIR) and adopted the 2030 Comprehensive Plan. The Comprehensive Plan is the primary tool for guiding preservation and development in Palo Alto. The Comprehensive Plan addresses changes to the demographic, economic and environmental conditions in Palo Alto that are anticipated to occur through 2030. The Comprehensive Plan has a development capacity of up to 4,420 housing units and up to three million square feet of new office and research and development (R&D) space. The new development would result in up to 10,455 new residents and up to 11,500 new jobs in the City.

This SEIR tiers from the Comprehensive Plan Update FEIR because the project was included in the overall development that was analyzed for that document at a program level. An SEIR is required for this project because the NVCAP would be built out and fully occupied by 2040, which exceeds

[5] City of Palo Alto. *Comprehensive Plan Update Final EIR for the City of Palo Alto*. State Clearinghouse (SCH) # 2014052101. August 30, 2017.

the 2030 Comprehensive Plan's development horizon of 2030. In addition, as discussed in Section 3.4 Cultural Resources, future projects proposed under the North Ventura Coordinated Area Plan could result in the demolition of historic buildings, including yet identified historic resources as defined in CEQA Guidelines Section 15064.5. This constitutes a new significant unavoidable impact.

1.2 SEIR Scope

This Draft SEIR is a program EIR that analyzes the adoption and implementation of the proposed NVCAP. As described in Section 15168 of the CEQA Guidelines, program EIRs are appropriate when a project consists of a series of actions related to the issuance of rules, regulations, and other planning criteria.

The NVCAP is a long-term plan that will be implemented over time as a policy document guiding future development activities in the North Ventura area. No specific development projects are proposed as part of the project. Therefore, this EIR is a program EIR that analyzes the potential significant environmental effects of the cumulative development that is anticipated to occur during the life of the NVCAP (i.e., to the year 2040). As a program EIR, it is not project-specific, and does not evaluate the impacts of individual projects that may be proposed under the NVCAP. Such subsequent projects may require separate environmental review, when applicable as required by CEQA, which could be in the form of an Addendum, Negative Declaration, Mitigated Negative Declaration, or a Subsequent EIR, to secure the necessary development permits. Therefore, while subsequent environmental review may be tiered from this SEIR, this SEIR is not intended to address project-specific impacts of individual projects.

The scope of this SEIR was determined by the City of Palo Alto through the EIR scoping process and the certified Comprehensive Plan Update FEIR.

1.2.1 Impacts Unchanged or Considered Less than Significant

Implementation of the NVCAP would have the same less than significant impacts to the following resources:

- **Geology and Soils** – The 2030 Comprehensive Plan Update FEIR found that compliance with existing regulations (including the California Building Code [CBC] and City of Palo Alto Municipal Code) would ensure that geology, soils, and seismicity impacts would be less than significant. Development under the NVCAP would be subject to the same existing regulations and would, therefore, result in less than significant geology and soils impacts.
- **Population and Housing** – The 2030 Comprehensive Plan Update FEIR concluded that implementation of the Comprehensive Plan would provide a policy context for projected growth within the City and would not induce a substantial amount of growth that had not been adequately planned for or require the construction of replacement housing elsewhere. Build out under the NVCAP would not exceed what was evaluated as part the 2030 Comprehensive Plan Update FEIR; therefore, impacts to population and housing would be less than significant.

- **Public Services** – The 2030 Comprehensive Plan Update FEIR found that implementation of the Comprehensive Plan would not necessitate the need for new or replacement public facilities and that existing public facilities (including schools, police, fire, and libraries) would be able to accommodate build out under the NVCAP. Future development (including under the NVCAP) would be required to comply with the Municipal Code Chapter 16.58, 21.50, and California Government Code Section 65995, which would ensure future developments provide their fair-share of costs for construction of new schools, parks, and libraries.
- **Recreation** – The 2030 Comprehensive Plan Update FEIR concluded that build out under the Comprehensive Plan would result in residential development increases that would increase population, and subsequently the demand for parks and recreation facilities throughout the City. Future construction or expansion of new parks or recreational facilities would be evaluated and mitigation identified consistent with Mitigation Measure PS-7. The NVCAP proposes approximately two acres of public open space, the impacts of which are evaluated at a program-level as part of this SEIR (refer to Section 2.4.2 of this SEIR). The 2030 Comprehensive Plan Update FEIR concluded that new residential development (including the project) would be subject to the Park Land Dedication requirements in Chapter 21.50.040 of the Municipal Code. For these reasons, build out under the NVCAP would result in the same less than significant recreation impacts.
- **Wildfire** – The project area is within an area identified as a low fire hazard severity zone as classified by City of Palo Alto Fire, consistent with the California Department of Forestry and Fire Protection (CAL FIRE). Therefore, the implementation of the NVCAP would not result in wildfire impacts.

Accordingly, these resources are not evaluated further in this SEIR.

The 2030 Comprehensive Plan Update FEIR found that implementation of the Comprehensive Plan would have no impacts to Agricultural and Forestry Resources or Mineral Resources. As such, this SEIR does not evaluate impacts to these resources as the NVCAP would have the same negligible impacts disclosed in the 2030 Comprehensive Plan Update FEIR.

1.2.2 Potentially Significant Impacts

Implementation of the NVCAP could result in potentially significant impacts to the following resources; therefore, those impacts are analyzed in this SEIR.

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials

- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Transportation
- Tribal Cultural Resources
- Utilities and Service System

1.2.3 Incorporation by Reference

All documents cited or referenced are incorporated into the SEIR in accordance with CEQA Guidelines Section 15150, including but not limited to:

- City of Palo Alto 2030 Comprehensive Plan
- City of Palo Alto, Comprehensive Plan Update FEIR

1.3 SEIR Process

1.3.1 Notice of Preparation and Scoping

In accordance with Section 15082 of the CEQA Guidelines, the City prepared a Notice of Preparation (NOP) for this EIR. The NOP was circulated to local, state, and federal agencies on March 1, 2023. The standard 30-day comment period concluded on March 30, 2023. The NOP provided a general description of the proposed project and identified possible environmental impacts that could result from implementation of the project. Appendix A of this SEIR includes the NOP and comments received on the NOP.

1.3.2 Draft SEIR Public Review and Comment Period

Publication of this Draft SEIR will mark the beginning of a 45-day public review period. During this period, the Draft SEIR will be available to the public and local, state, and federal agencies for review and comment. Notice of the availability and completion of this Draft SEIR will be sent directly to every agency, person, and organization that commented on the NOP, as well as the Office of Planning and Research. Written comments concerning the environmental review contained in this Draft SEIR during the 45-day public review period should be sent to:

Kelly Cha, Senior Planner
City of Palo Alto
250 Hamilton Avenue Palo Alto, CA 94301
Kelly.Cha@CityoaloAlto.org

1.4 Final SEIR/Responses to Comments

Following the conclusion of the 45-day public review period, the City will prepare a Final SEIR in conformance with CEQA Guidelines Section 15132. The Final SEIR will consist of:

- Revisions to the Draft SEIR text, as necessary;
- List of individuals and agencies commenting on the Draft SEIR;
- Responses to comments received on the Draft SEIR, in accordance with CEQA Guidelines (Section 15088);
- Copies of letters received on the Draft SEIR.

Section 15091(a) of the CEQA Guidelines stipulates that no public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings. If the lead agency approves a project despite it resulting in significant adverse environmental impacts that cannot be mitigated to a less than significant level, the agency must state the reasons for its action in writing. This Statement of Overriding Considerations must be included in the record of project approval.

1.4.1 Notice of Determination

If the project is approved, the City will file a Notice of Determination (NOD), which will be available for public inspection and posted within 24 hours of receipt at the County Clerk's Office and available for public inspection for 30 days. The filing of the NOD starts a 30-day statute of limitations on court challenges to the approval under CEQA (CEQA Guidelines Section 15094(g)).

Section 2.0 Project Information and Description

The City has proposed the NVCAP in accordance with Palo Alto Municipal Code Section 19.10 and the Palo Alto 2030 Comprehensive Plan Policy L-1.7 and Program L-4.10, which specifically calls for the preparation of a plan for the North Ventura and surrounding California Avenue area. The intent is to establish the future of the North Ventura area as a walkable neighborhood with multi-family housing, ground-floor retail, a public park, creek improvements, and an interconnected street grid. The NVCAP would be built out over an approximate 20-year period.

2.1 Project Location

The NVCAP is approximately 60 acres, roughly bounded by Oregon Expressway/Page Mill Road, El Camino Real, Lambert Avenue, and the Caltrain rail corridor. The NVCAP area includes a large housing opportunity site, which was formerly occupied by Fry's Electronics, as well as a mix of small and large businesses and single-family residences. Nearby neighborhoods include the Mayfield neighborhood to the west, the Midtown neighborhood to the north across the train tracks, and Stanford Research Park to the south. Approximately 70 percent of the NVCAP area is located within the California Avenue Priority Development Area (PDA). Regional and vicinity maps of the NVCAP area are shown on Figure 2.2-1 and Figure 2.2-2, respectively.

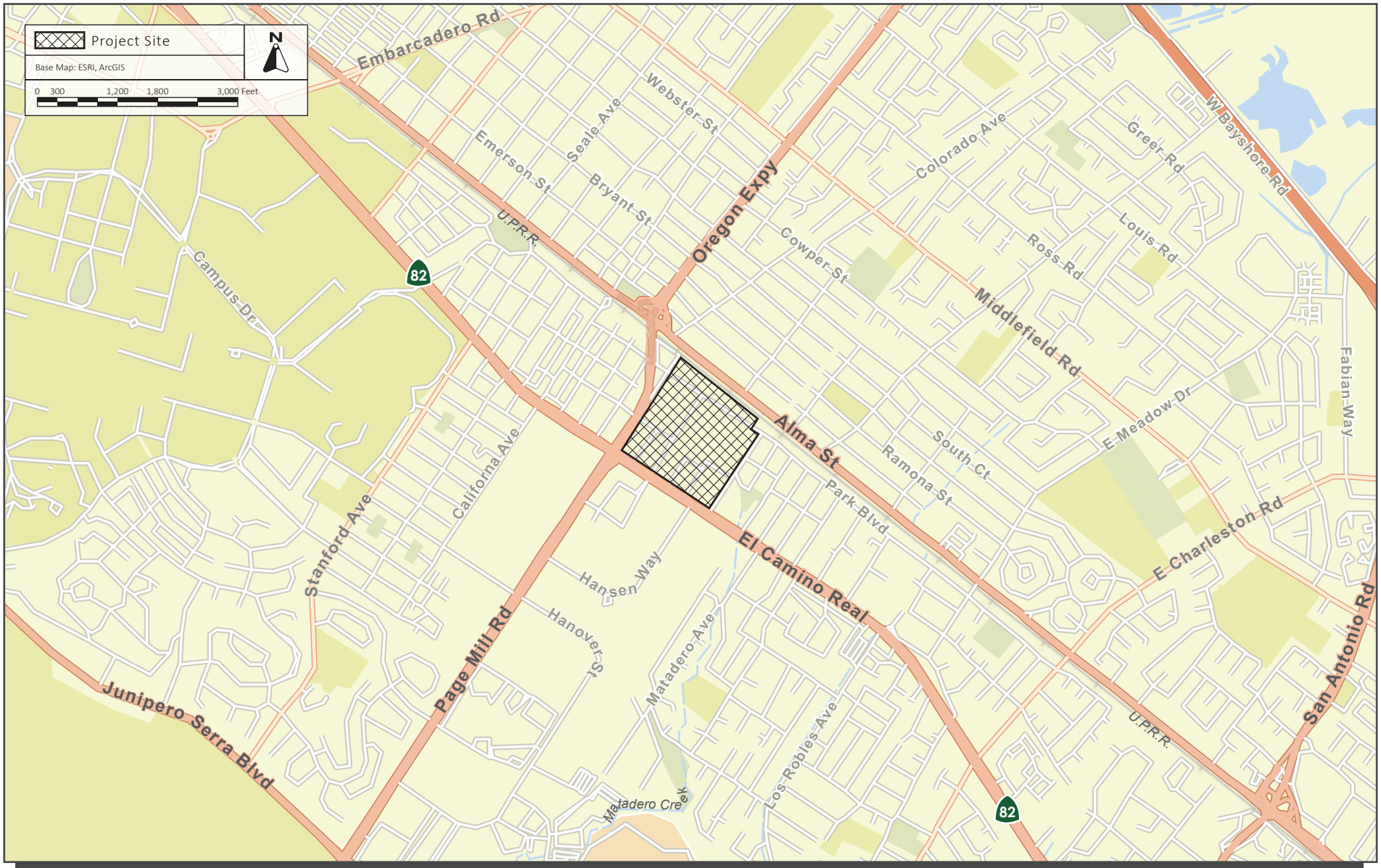
2.2 Project Background

The City of Palo Alto adopted its 2030 Comprehensive Plan in November 2017, which is the primary tool for guiding preservation and development in Palo Alto. The NVCAP reflects community values and provides a collective vision that guides preservation, growth, and change. The NVCAP area is a part of the California Avenue Multi-Neighborhood Center. A multi-neighborhood center is defined as retail shopping centers or districts that serves more than one neighborhood with a diverse mix of uses, including retail, service, office, and residential. Program L4.10.1 directs staff to prepare a coordinated area plan for the North Ventura area and surrounding California Avenue area.

2.2.1 340 Portage Development Agreement

In parallel to the NVCAP planning process, Sobrato had proposed the 200 Portage Townhome Project, which included demolition of a portion of the cannery building at 340 Portage (also known as the Fry's site) to accommodate a 91-unit Townhome development on a 4.86- acre site. As an alternative to the proposed 91-unit development, the City processed a Development Agreement on a combined 14.65-acre property at this location, which was analyzed in Alternative 3 of that EIR. The Development Agreement similarly included demolition of a portion of the cannery building at 340 Portage to accommodate 74-townhome units and an approximately 75-unit affordable housing development. The project also included dedication of a 2.25-acre park to the City adjacent Matadero Creek. A Revised Final EIR was published on June 2, 2023. On September 12, 2023, the City of Palo Alto City Council approved the Alternative 3, Development Agreement, Project, adopting the 200 Portage Avenue Townhome Project EIR and making findings of overriding

REGIONAL MAP | FIGURE 2.2-1



VICINITY MAP | FIGURE 2.2-2

consideration for the Development Agreement Project. The Development Agreement became effective November 1, 2023. This project is evaluated as a cumulative project in this EIR.

2.2.1 Existing Land Use and Zoning

The NVCAP area is made up of a mix of single- and multi-family residential, office, commercial services (including automotive), and retail uses. Service commercial uses are concentrated along El Camino Real, Lambert Avenue, and the southern segment of Portage Avenue.

Existing land use designations within the NVCAP include Single Family Residential, Multi-Family Residential, Neighborhood Commercial, Service Commercial, Research/Office Park, and Light Industrial.

Parcels in the NVCAP are in a range of zoning districts, as summarized in Table 2.2-1**.**

Table 2.2-1: Existing Zoning Districts in the NVCAP

Zoning District	Description
R-1 Single-Family Residential	The R-1 single-family residential district is intended to create, preserve, and enhance areas suitable for detached dwellings with a strong presence of nature and with open area affording maximum privacy and opportunities for outdoor living and children's play. Minimum site area requirements are established to create and preserve variety among neighborhoods, to provide adequate open area, and to encourage quality design.
Multiple-Family Residential (RM-30)	The RM-30 medium density multiple-family residence district is intended to create, preserve and enhance neighborhoods for multiple-family housing with site development standards and visual characteristics intended to mitigate impacts on nearby lower density residential districts. Projects at this density are intended for larger parcels that will enable developments to provide their own parking spaces and to meet their open space needs in the form of garden apartments or cluster developments. Permitted densities in the RM-30 residence district range from sixteen to thirty dwelling units per acre.
Neighborhood Commercial (CN)	The CN neighborhood commercial district is intended to create and maintain neighborhood shopping areas primarily accommodating retail sales, personal service, eating and drinking, and office uses of moderate size serving the immediate neighborhood, under regulations that will assure maximum compatibility with surrounding residential areas.
Service Commercial (CS)	The CS service commercial district is intended to create and maintain areas accommodating citywide and regional services that may be inappropriate in neighborhood or pedestrian-oriented shopping areas,

Zoning District	Description
	and which generally require automotive access for customer convenience, servicing of vehicles or equipment, loading or unloading, or parking of commercial service vehicles.
Research, Office, and Limited Manufacturing (ROLM)	The ROLM research, office and limited manufacturing district provides for a limited group of office, research and manufacturing uses in a manufacturing/research park environment, where uses requiring larger sites and available natural light and air can locate. Office uses can be accommodated, but should not predominate in the district. The ROLM district is primarily intended for land designated for research and office park use by the Palo Alto Comprehensive Plan and located east of El Camino Real.
General Manufacturing (GM)	The GM general manufacturing district provides for light manufacturing, research, and commercial service uses. Office uses are very limited in order to maintain the district as a desirable location for manufacturing uses. The GM district is intended for application to land designated for light industrial use in the Palo Alto Comprehensive Plan.
PC Planned Community District	The PC planned community district is intended to accommodate developments for residential, commercial, professional, research, administrative, industrial, or other activities, including combinations of uses appropriately requiring flexibility under controlled conditions not otherwise attainable under other districts. The planned community district is particularly intended for unified, comprehensively planned developments which are of substantial public benefit, and which conform with and enhance the policies and programs of the Palo Alto Comprehensive Plan.

2.3 Project Description

The NVCAP includes land use policies and programs that would allow up to an additional 530 residential units and approximately two acres of new public open space within the NVCAP area. While new commercial and office space is expected in the NVCAP area, there would be an overall net decrease in commercial space compared to existing conditions with build out of the NVCAP to accommodate the new residential development. The NVCAP would result in a net reduction of up to 278,000 square feet of office and up to 7,500 square feet of retail, as summarized Table 2.3-1.

Table 2.3-1: NVCAP Development Potential

Land Use	Existing	Future	Net Change
Residential (units)	142	672	+ 530
Parks (acres)	--	Approximately 2	+ Approximately 2
Office (square feet)	744,000	466,000	- 278,000
Retail (square feet)	111,200	103,700	- 7,500

2.3.1 Proposed NVCAP Land Use Classifications

2.3.1.1 *Residential*

The NVCAP land use framework is focused on providing a variety of housing options to support Palo Alto residents at different stages of life. Residential densities would range from low to high, allowing for a wide range of multi-family housing typologies and mixed-use typologies. The proposed land uses are shown in Figure 2.3-1.

High-Density Mixed Use

The NVCAP would allow high-density mixed-uses along the southern segment of El Camino Real. The designation is intended to support five- to six-story mid-rise apartment buildings. This designation requires active uses for ground floor frontages with retail requirements at specific nodes along El Camino Real, to support its role as a regional commercial corridor. The designation requires that upper stories be residential.

Medium-Density Mixed Use

Under the NVCAP, medium-density mixed used would be located on the northern segment of El Camino Real and Page Mill Road. This designation is intended to support four- to five-story mid-rise apartment buildings. The designation requires active uses for ground-floor frontages with residential on the upper floors.

Low-Density Mixed Use

Low-density mixed use would be located along Ash Street to support multi-family and limited commercial development in proximity to low-density residential. This designation serves as a transition between the high-density residential and medium- and low-density residential areas.

High-Density Residential

The high-density residential designation is located on the existing 395 Page Mill surface parking lot, along Page Mill Road and Ash Street to support the long-term goal of supporting additional workforce and affordable housing in the NVCAP area. The designation requires that both the ground floor and upper floors are residential use.

PROPOSED NVCAP LAND USE CLASSIFICATION MAP | FIGURE 2.3-1

Medium Density Residential

The medium density residential designation is located at the 340 Portage Avenue site to support the long-term goal of supporting additional housing in the NVCAP area.[6] The designation requires that both the ground floor and upper floors are residential use. The designation is intended to support a mix of townhouses and mid-rise apartments.

Low-Density Residential

The low-density residential designation facilitates new housing development while also being sensitive to the existing single-family neighborhood, located along Pepper Avenue and Olive Avenue. This designation consists of single-family residential and two-family residential uses and allows for accessory and junior accessory dwelling units associated with these uses in accordance with state law.

2.3.1.2 *Open Space*

This land use designation is located in the southeastern corner of the NVCAP area and would include the proposed approximately 2-acre public open space, as well as facilitating renaturalization of Matadero Creek between Park Boulevard and Lambert Avenue (see discussion below in Section 2.4.3).

2.3.2 Proposed Zoning Districts

The NVCAP's zoning districts are listed in Table 2.3-2, along with development standards for each zoning district.

Table 2.3-2: Zoning District Standards

NVCAP Land Use Classification	Anticipated Density (DU/AC)	Maximum Height (feet)	Floor Area Ratio (FAR)	Allowed Zoning Districts
High Density Mixed-Use	61-100	55	3.0:1	High Density Mixed-Use District (NV-MXH)
Medium Density Mixed-Use	31-70	45	2.0:1	Medium Density Mixed-Use District (NV-MXM)
Low Density Mixed-Use	3-17	35	0.5:1	Low Density Mixed-Use District (NV-MXL)
High Density Residential	61-100	55	N/A	High Density Multiple-Family Residential District (NV-R4) Public Facilities District (NV-PF)

[6] For purposes of this SEIR, it assumed that the 340 Portage Avenue property would remain, would be increased in height to three stories, and the interior of the building would be developed with 281 residential units and 7,400 square feet of retail.

NVCAP Land Use Classification	Anticipated Density (DU/AC)	Maximum Height (feet)	Floor Area Ratio (FAR)	Allowed Zoning Districts
Medium Density[7] Residential	16-30	36	1.5:1	Medium Density Multiple-Family Residential District (NV-R3)
Low Density Residential	1 or 2 units/ lot	30	0.45:1	Two-Family Residential District (NV-R2) Single-Family Residential North Ventura Combining District (NV-R1)
Parks	--	--	--	PF(NV)

2.3.2.1 *Legal Non-Conforming Uses*

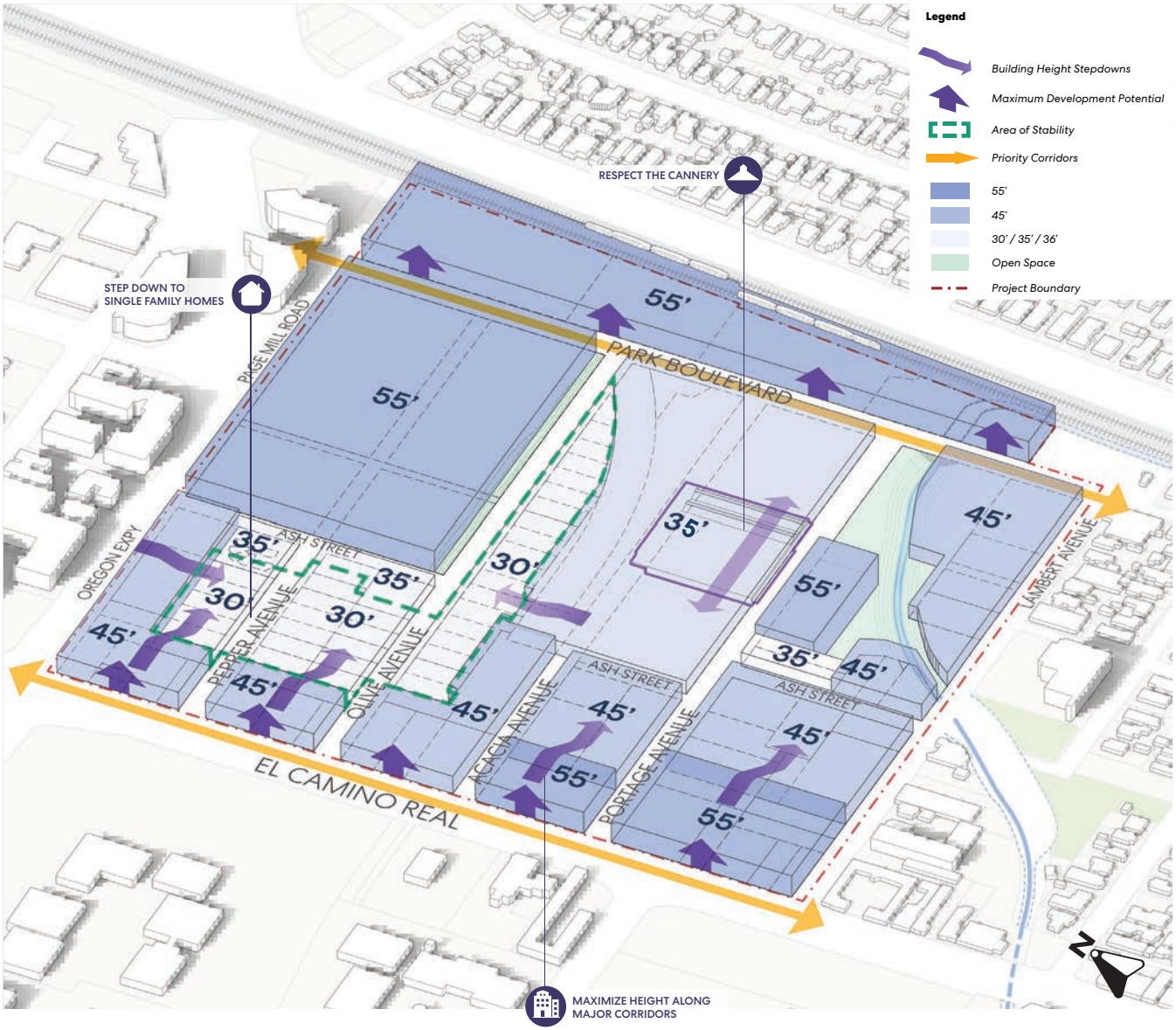
Conforming uses existing prior to the adoption of the proposed NVCAP may continue as though the prior zoning of the parcel remained in place, until such time as the existing use (including any expansions) has been discontinued in its entirety. Once existing uses have been discontinued, the prior zoning shall become inapplicable and the proposed NVCAP shall apply from that point forward.

2.3.3 Design Guidelines

2.3.3.1 *Bulk and Massing*

The NVCAP contains design guidelines to ensure building bulk and massing are appropriate for the neighborhood. New buildings shall not exceed 55 feet in height (with the exception of affordable housing, as noted below). The allowable height zones are shown in Figure 2.3-2.

[7] In accordance with the approved Development Agreement, which was introduced to Council on September 12, 2023 and approved on October 2, 2023, areas shown in the plan to be proposed as a Medium Density Residential land use designation, areas designated as high density areas adjacent Ash Street and Portage Avenue, and the areas designated as Parks land have been re-designated with a Mixed Use Designation (Resolution 10124) and rezoned in accordance with PC-5596, PC-5597, PC-5598, PC-5599, and PC-6000. The proposed NVCAP still reflects the City's preferred design and rezoning of the NVCAP plan area consistent with Council's selected NVCAP preferred plan. However, the accompanying resolution for this coordinated area plan, which will amend the comprehensive plan, and the ordinance rezoning the parcels within the NVCAP area, will not include re-designation or rezoning of the parcels at 200-404 Portage, 3040-3250 Park, 3201 -3225 Ash Street, and 278 Lambert for at least a period of 10-years consistent with the terms of the Development Agreement (see Record of Land Use Action 2023-03 for further details).



ALLOWABLE HEIGHT ZONES

FIGURE 2.3-2

2.3.3.2 *Street Frontages*

Retail and Active Use Frontage

Within the NVCAP, ground floor retail and active uses would be required along El Camino Real. These ground floor spaces would accommodate a wide variety of commercial spaces including local shops, cafes, maker spaces[8], co-working spaces[9], and professional services. Ground floor active uses would also be encouraged for new development fronting Park Boulevard.

The following uses are considered as active:

- Neighborhood-serving retail that provides goods and services that people would frequently use to take care of their personal and household needs. Examples include grocery stores, drug stores, eating and drinking establishments, dry cleaners, hair salons, etc.
- Professional offices such as dentists that are 5,000 square feet or less that have regular customer appointments;
- Public uses including a community room and daycare;
- Building lobbies;
- Spaces accessory to residential uses, such as fitness rooms, workspaces, leasing offices, shared kitchens, mail rooms, and Class I bicycle parking facilities with direct access to the sidewalk or street.

New development would be required to adhere to Chapter 18.24 Contextual Design Criteria and Objective Design Standards of the Palo Alto Municipal Code (PAMC).

Portage Avenue Frontage

Ground floor entries along the Portage Avenue frontage would be required to be flush at sidewalk grade and have a minimum of four active doorways per 200 linear feet. Balconies and terraces would be encouraged along the streetwall[10] above the ground floor.

Residential Frontage

The residential ground floor level would be characterized by a lower intensity of activity, generally fronting onto streets that would be quieter in character and would serve to foster neighborhood connection. In accordance with Chapter 18.24 Contextual Design Criteria and Objective Design Standards, individual residential entries would be raised above sidewalk grade based on the setback

[8] A makerspace is a community-operated workspace where people with common interests can come together to work on projects, learn new skills, and share equipment and resources.
[9] Co-working is an arrangement in which workers for different companies share an office space.
[10] Streetwall means the vertical plane parallel to the street in which the front building facades of the majority of the buildings along a street are located.

condition from the property line. Ground floor residential units would have entries with direct, individual access onto a public right-of-way, open space, or easement.

Residential units would be required to provide a stoop to create a social distance from the street; home office units are not required to have stoops and may be entered at grade. The design of stoops should balance the need to create privacy for the unit occupant and allow visual connection with the street. Areas between stoops should be planted and can be an opportunity to provide stormwater management elements.

2.3.4 Affordable Housing

New residential development within the NVCAP would require 20 percent inclusionary below market rate (BMR) for-sale townhouses or 15 percent inclusionary BMR for-sale condominiums and rental projects. The affordable housing requirement would be in addition to the high-density residential that is proposed on the existing 395 Page Mill surface parking lot. In accordance with the PAMC, in-lieu fees may be paid in certain circumstances. In-lieu fees would be deposited into the City's commercial and residential housing fund, which is used exclusively to provide affordable housing to very low income, lower income, and moderate-income households.

2.3.5 Circulation Improvements

The NVCAP would create and enhance well-defined connections to transit, pedestrian, and bicycle facilities, including connections to the Caltrain Station, Park Boulevard, and El Camino Real.

2.3.5.1 *Roadway Improvements*

The NVCAP would maintain the existing vehicular flow on Park Boulevard, Olive Avenue, Acacia Avenue, Pepper Avenue, and Portage Avenue. Streets within the NVCAP would be designed to create opportunities for a variety of travel options, with generous and active sidewalks and designated bicycle facilities.

To support local access and mitigate cut-through traffic, the NVCAP would convert Ash Street (southbound from Page Mill Road to Olive Avenue) to one-way. On Lambert Avenue, the existing vehicular travel lane would be narrowed, and on-street parking eliminated to create a wider pedestrian thoroughfare. The proposed street network is shown on Figure 2.3-3 and summarized in Table 2.3-3.

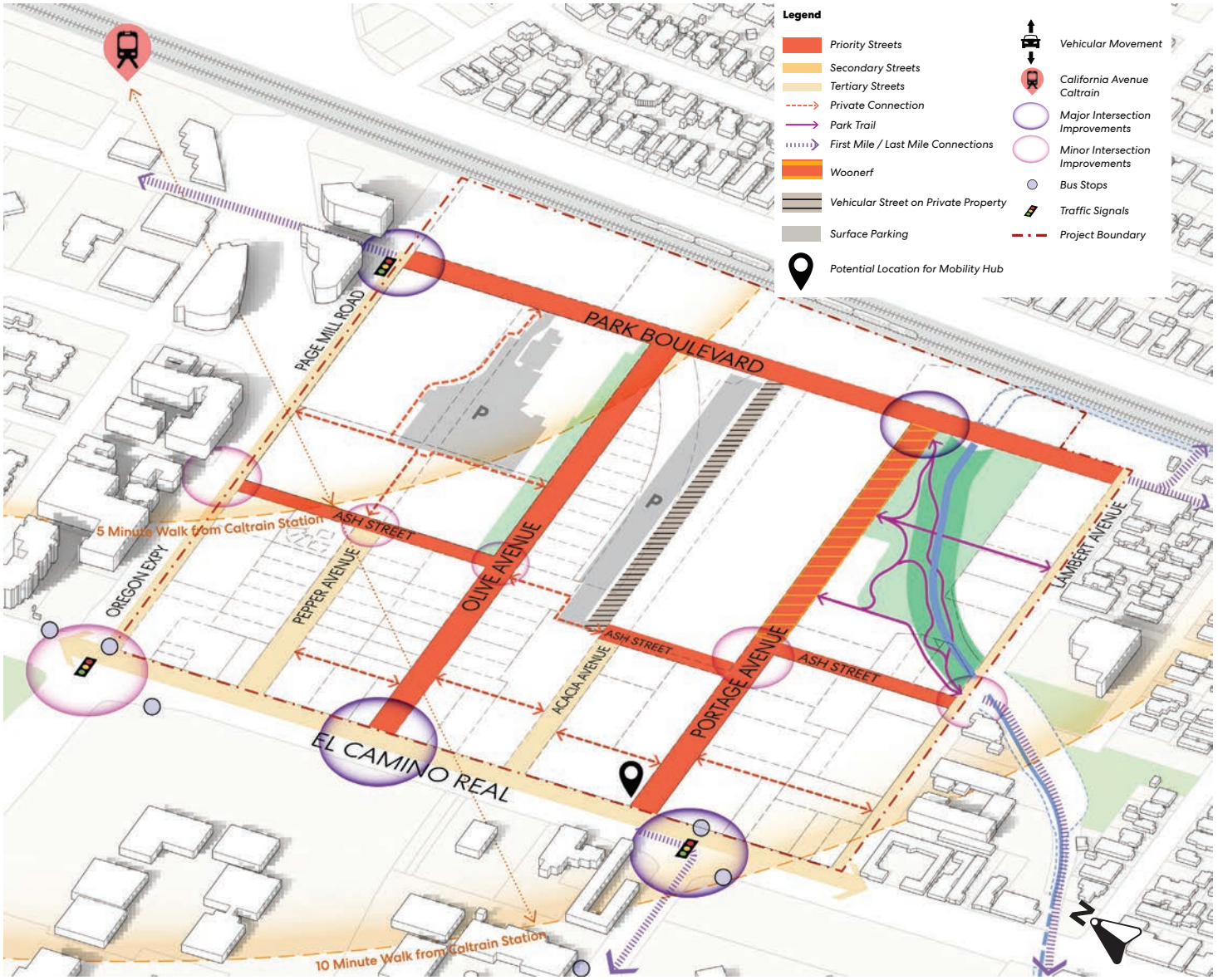
Table 2.3-3: NVCAP Street Network

Street	Vehicle Lanes	Street Parking	Buffers	Pedestrian Path[1]	Bike Lanes
Park Boulevard	10 feet Two-way	None	Two to three feet between road and bike lane	8 feet	Separated five-foot buffered bike lanes (Class IV)
Olive Avenue	10-foot shared lane Two-way	One lane of on-street parking	Three to four feet	8 feet	10-foot shared lane (Class III)
Ash Street (between Page Mill Road and Olive)	10-foot shared lane One-way	None	Five-foot landscape zone	8 to 12 feet	10-foot shared lane plus 12-foot shared path (Class III, Class I)
Ash Street (between Acacia and Lambert Avenue)	10-foot shared lane Two-way	None	Four-foot landscape zone	8 feet	10-foot shared lane plus 8-foot sidewalk (Class III)
Acacia Avenue	10-foot Two-way	One lane of on-street parking	Four-foot landscape zone	8 feet	None
Pepper Avenue	10-foot Two-way	Two lanes of on-street parking	Five-foot landscape zone	8 feet	None
Portage Avenue (between Park Boulevard and Ash Street)	10-foot shared lane Two-way	None	15- and eight-foot landscape zone	8 feet	10-foot shared (Class III)
Portage Avenue (between Ash Street and El Camino Real)	10-foot shared lane Two-way	One-lane of on-street parking	15-foot landscape zone	8 feet	10-foot shared (Class III)
Lambert Avenue	10-foot two-way	None	7.5-foot landscape zone	10 feet	None
El Camino Real[2]	--	--	Four-foot landscape zone	8 feet	Class IV or II

Notes:

1. Sidewalks would be a minimum of 12 feet, including pedestrian clear zone (eight feet) and the landscape/furniture zone.

2. The configuration of El Camino Real will be determined in coordination with Caltrans, independent of the NVCAP



PROPOSED CIRCULATION NETWORK | FIGURE 2.3-3

In addition to the roadway improvements described above, traffic calming measures such as speed humps and raised crosswalks to maintain low vehicle speeds are recommended along Olive Avenue and Lambert Avenue. A chicane, which is an offset curve to the road, is recommended for Pepper Avenue. These and the above listed improvements are discussed further in this analysis.

The NVCAP shows intersection improvements that may be considered in the future, subject to the relevant jurisdiction's approval (County or Caltrans), as applicable, and if future conditions warrant such improvements. They are not required and may not be implemented as part of the NVCAP. These include:

- El Camino Real and Page Mill Road—remove the eastbound right turn slip lane[11] from Page Mill Road to El Camino Real
- El Camino Real and Olive Avenue—install a traffic signal
- El Camino Real and Portage Avenue/Hansen Way—close the Hansen Way slip lanes from El Camino Real
- Page Mill Road and Ash Street-install a hybrid beacon[12] or full traffic signal

Implementation of these measures in the future would require further study and coordination with relevant jurisdictions.

2.3.5.2 *Pedestrian and Bicycle Improvements*

Pedestrian improvements would include 12-foot sidewalks, with eight-foot pedestrian paths plus a landscape/furniture zone.[13] The pedestrian network is shown on Figure 2.3-4 and summarized in Table 2.3-3.

The NVCAP would eliminate portions of on-street parking to create opportunities for new Class IV bike lanes (protected lanes) on Park Boulevard. Class II (separated bike lanes) and Class III (shared travel lanes) would be provided on Olive Avenue, Ash Street, and Portage Avenue. The bike network is shown on Figure 2.3-5.

[11] Slip lanes are separate turn lanes that allow cars to make a right-hand turn without fully stopping for a red light at an intersection

[12] A hybrid beacon is a traffic control device designed to help pedestrians safely cross higher-speed roadways at midblock crossings and uncontrolled intersections.

[13] The street furniture zone is defined as the section of the sidewalk between the curb and the through zone in which street furniture and amenities, such as lighting, benches, newspaper kiosks, utility poles, tree well, and bicycle parking are provided. The street furniture zone may also consist of green infrastructure elements, such as rain gardens or flow-through planters.

PROPOSED PEDESTRIAN NETWORK | FIGURE 2.3-4

PROPOSED BIKE NETWORK

FIGURE 2.3-5

2.3.6 Utility Improvements

The NVCAP area is served by existing storm drain facilities, including 55 linear miles of 12-inch or greater pipe and four pump stations. The City's Storm Drain Master Plan has identified several improvements in the NVCAP vicinity. As development proceeds within the NVCAP, it is possible that projects would be required to upgrade storm drain infrastructure.

The NVCAP area is served by existing six to 15-inch sewer mains located in the public roads. According to the City's Wastewater Map, upgrades to the existing sanitary sewer mains are planned in El Camino Real, Page Mill Road, and Lambert Avenue. Future development within the NVCAP would need to conduct project-level analyses to determine whether the existing infrastructure could accommodate project flows.

The NVCAP area consists of existing six to 12-inch water mains within the public streets. The six-inch water mains would likely not be sufficient to support new development and would need to be evaluated on a project-by-project basis to determine if upsizing is warranted.

2.3.7 Transportation Demand Management Strategies

Future development in the NVCAP would be required to implement Transportation Demand Management (TDM) strategies to encourage and incentivize alternatives to driving. The TDM would need to achieve a 35 percent reduction in vehicle trips. TDM strategies may include:

- Shared bike or scooter service
- Bicycle support facilities (i.e., short- and long-term bicycle parking, shower, and lockers)
- Car share
- Shuttle service and new stops
- Electric vehicle (EV) charging facilities
- Membership in the Palo Alto Transportation Management Association (PTMA)
- Carpool resources
- Active transportation incentives (i.e., bike/scooter share coupons or subsidies)
- Shared mobility incentives (i.e., rideshare discounts, carshare discounts, free or subsidized transit passes)
- Promotional materials advertising alternative transportation modes
- Participation in City-wide events encouraging alternatives modes of transportation (i.e., annual Bike to Wherever Day)

2.3.8 Public Open Space

An approximately two-acre public open space (Matadero Park) is proposed at the southwestern corner of the NVCAP area. The park programming may include a dog park, outdoor fitness area, natural habitat area, community garden, or amphitheater. The park may also accommodate passive

uses, such as picnic tables, seating, and gathering spaces. Future design and programming of the open space would be subject to a separate process and evaluation, requiring consideration by the City's Parks and Recreation Commission and Council approval of a Park Improvement Ordinance.

2.3.9 Naturalization of Matadero Creek

The NVCAP would facilitate renaturalization of Matadero Creek through the establishment of a 100-foot riparian corridor buffer, as shown on Figure 2.4-1. The existing creek is an approximately 30-foot wide concrete flood control channel that flows south to north through the NVCAP area. Renaturalization of the creek would entail removal of the existing concrete and revegetation with riparian plantings.

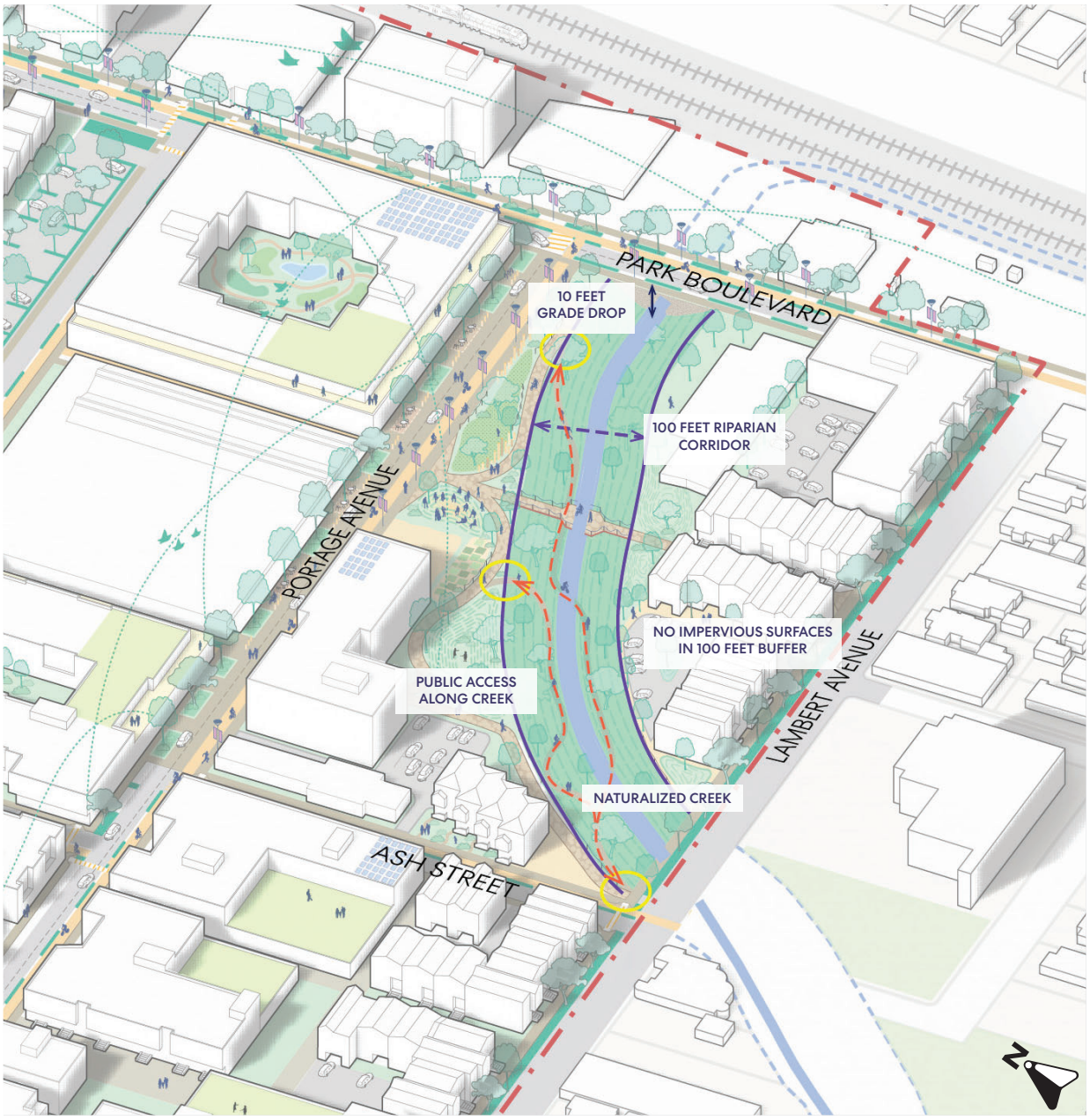
In order to facilitate widening of the creek, the Lambert Avenue bridge would be replaced with a new 100-foot clear-span that would connect Portage Avenue and Lambert Avenue (refer to Figure 2.4-1). An existing water main would also need to be relocated to the new bridge structure.

Alterations to the creek are not proposed as part of the NVCAP and would be evaluated pursuant to CEQA once a project-level design is available.

2.3.10 Sustainable Design Measures

All new development would be built in accordance with Chapter 16.14 of the PAMC California Green Building Standards Code. In addition, all proposed residential buildings would be required to meet CALGreen Tier 2 requirements. The NVCAP includes the following range of measures to be implemented on a project-by-project basis:

- Bird-Safe Building Design – utilize bird-safe materials (i.e., fritted glass, etched glass, UV coated glassed) for all new mixed-use development that have facades exceeding 30 percent glazing.
- Minimize Heat Gain – building facades should be designed to balance solar access with the need to control heat gain.
- Roofs – building roofs should be designed to include vegetated roof cover and to create usable recreational spaces.
- Renewable energy – buildings should provide solar ready infrastructure consistent with CalGreen standards.



CONCEPTUAL MATADERO CREEK BUFFER | FIGURE 2.3-6

2.4 Project Objectives

The City has identified the following goals and objectives to guide development within the NVCAP:

1) **Housing and Land Use.** Add to the City's supply of multi-family housing, including market rate, affordable, "missing middle," and senior housing in a walkable, mixed-use, transit-accessible neighborhood, with retail and commercial services, open space, and possibly arts and entertainment uses.
2) **Transit, Pedestrian, and Bicycle Connections.** Create and enhance well-defined connections to transit, pedestrian, and bicycle facilities, including connections to the Caltrain Station, Park Boulevard, and El Camino Real.
3) **Connected Street Grid.** Create a connected street grid, filling in sidewalk gaps and street connections to California Avenue, the Caltrain Station, and El Camino Real where appropriate.
4) **Community Facilities and Infrastructure.** Carefully align and integrate development of new community facilities and infrastructure with private development, recognizing both the community's needs and that such investments can increase the cost of housing.
5) **Balance of Community Interests.** Balance community-wide objectives with the interests of neighborhood residents and minimize displacement of existing residents.
6) **Urban Design, Design Guidelines, and Neighborhood Fabric.** Develop human-scale urban design strategies, and design guidelines that strengthen and support the neighborhood fabric. Infill development will respect the scale and character of the surrounding residential neighborhood.
7) **Sustainability and the Environment.** Protect and enhance the environment, while addressing the principles of sustainability.
8) **Data-Driven Approach.** Employ a data-driven approach that considers community desires, market conditions and forecasts, financial feasibility, existing uses and development patterns, development capacity, traffic and travel patterns, historic/cultural and natural resources, need for community facilities (e.g., schools), and other relevant data to inform plan policies.
9) **Comprehensive User-Friendly Document and Implementation.** Create a comprehensive but user-friendly document that identifies the distribution, location and extent of land uses, planning policies, development regulations, and design guidelines to enable development and needed infrastructure investments in the project area.
10) **Guide and Strategy for Staff and Decision Makers.** Provide a guide and strategy for staff and decision-makers to bridge the gap between the goals and policies of the Comprehensive Plan and individual development projects in order to streamline future land use and transportation decisions.
11) **Meaningful Community Engagement.** Enable a process with meaningful opportunities for community engagement, within the defined timeline, and an outcome (the NVCAP document) that reflects the community's priorities.
12) **Economic Feasibility.** A determination of the economic and fiscal feasibility of the NVCAP with specific analysis of marketplace factors and incentives and disincentives, as well as a

cost-benefit analysis of public infrastructure investments and projected economic benefits to the City and community.

13) **Environmental.** A plan that is protective of public health and a process that complies with the requirements of the California Environmental Quality Act.

2.5 Uses of the EIR

This SEIR provides decision-makers and the general public with relevant environmental information to use in considering the proposed NVCAP. It is expected that this SEIR would be used for appropriate discretionary and other approvals necessary to implement the project, as proposed. These actions may include, but are not limited to, the following approvals:

- Comprehensive Plan Land Use Diagram and Text Amendments
- Adoption of the NVCAP
- Rezonings to the City's zoning map and text amendments to the Palo Alto Municipal Code Titles 18 and 19 to implement the NVCAP.

Section 3.0 Environmental Setting, Impacts, and Mitigation

This section presents the discussion of impacts related to the following environmental subjects in their respective subsections:

3.1	Aesthetics	3.8	Hydrology and Water Quality
3.3	Air Quality	3.9	Land Use and Planning
3.3	Biological Resources	3.10	Noise
3.4	Cultural Resources	3.11	Transportation
3.5	Energy	3.12	Tribal Cultural Resources
3.6	Greenhouse Gas Emissions	3.13	Utilities and Service Systems
3.7	Hazards and Hazardous Materials		

The discussion for each environmental subject includes the following subsections:

Environmental Setting – This subsection 1) provides a brief overview of relevant plans, policies, and regulations that compose the regulatory framework for the project and 2) describes the existing, physical environmental conditions at the NVCAP area and in the surrounding area, as relevant.

Impact Discussion – This subsection includes the recommended checklist questions from Appendix G of the CEQA Guidelines to assess impacts.

- **Project Impacts** – This subsection discusses the project's impact on the environmental subject as related to the checklist questions. For significant impacts, feasible mitigation measures are identified. "Mitigation measures" are measures that will minimize, avoid, or eliminate a significant impact (CEQA Guidelines Section 15370). Each impact is numbered to correspond to the checklist question being answered. For example, Impact BIO-1 answers the first checklist question in the Biological Resources section. Mitigation measures are also numbered to correspond to the impact they address. For example, MM BIO-1.3 refers to the third mitigation measure for the first impact in the Biological Resources section.
- **Cumulative Impacts** – This subsection discusses the project's cumulative impact on the environmental subject. Cumulative impacts, as defined by CEQA, refer to two or more individual effects, which when combined, compound or increase other environmental impacts. Cumulative impacts may result from individually minor, but collectively significant effects taking place over a period of time. CEQA Guideline Section 15130 states that an EIR should discuss cumulative impacts "when the project's incremental effect is cumulatively considerable." The discussion does not need to be in as great detail as is necessary for project impacts, but is to be "guided by the standards of practicality and reasonableness." The purpose of the cumulative analysis is to allow decision makers to better understand the impacts that might result from approval of past, present, and reasonably foreseeable future projects, in conjunction with the proposed project addressed in this EIR.

The CEQA Guidelines advise that a discussion of cumulative impacts should reflect both their severity and the likelihood of their occurrence (CEQA Guidelines Section 15130(b)). To accomplish these two objectives, the analysis should include either a list of past, present, and probable future projects or a summary of projections from an adopted general plan or similar document (CEQA Guidelines Section 15130(b)(1)). Because the NVCAP is being prepared pursuant to the 2030 Comprehensive Plan, the method used to analyze cumulative impacts combines elements of both the "list" method and the adopted Comprehensive Plan method.

The analysis must determine whether the project's contribution to any cumulatively significant impact is cumulatively considerable, as defined by CEQA Guideline Section 15065(a)(3). The cumulative impacts discussion for each environmental issue accordingly addresses the following issues: 1) would the effects of all of past, present, and probable future (pending) development result in a significant cumulative impact on the resource in question; and, if that cumulative impact is likely to be significant, 2) would the contribution from the proposed project to that significant cumulative impact be cumulatively considerable?

Table 3.0-1 identifies the approved (but not yet constructed or occupied) and pending projects in the project vicinity that are evaluated in the cumulative analysis.

Table 3.0-1: Cumulative Projects List

Name and Location	Description	Distance to Proposed Project	Status
3200 Park Boulevard Townhome Project*	Demolition of the portion of the existing commercial building at 200 Portage Avenue and the commercial building at 3040 Park Boulevard within the area of proposed development and construction of 74 market rate townhomes in 7 three-story buildings as well as up to 75 affordable residential units on the city dedication parcel. The proposed project would also involve improvements to an existing portion of the on-site, two-story commercial building. The current tenants in the portion of the commercial building that would be demolished would move into the vacant portion of the building.	Within NVCAP	Approved
3001 El Camino Real	Demolish two existing retail buildings and to construct a 129 unit, 100 percent affordable, five-story, multi-family residential development.	Within NVCAP	Approved not yet under construction
420 Acacia Avenue	16 condominium units on an approximately 0.8-acre (35,753 square foot) property	Within NVCAP	Under Review

Name and Location	Description	Distance to Proposed Project	Status
3241 Park Boulevard	Demolish an existing 4,501 square foot building and construct a new 7,861 square foot office building.	Within NVCAP	Approved not yet under construction
3225 El Camino Real	Develop a 29,970 square foot parcel with eight residential condominium units in two mixed-use buildings with one below-grade parking structure.	Within NVCAP	Under construction
231 Grant Avenue	Construction of 110 affordable rental apartments	0.1 miles	Under construction
123 Sherman Avenue	Construction of a three-story office building with two levels of below-grade parking.	0.2 miles	Approved not yet under construction
739 Sutter Avenue	Demolition of an existing eight-unit, 4,400 square foot apartment building, and construction of 12 new townhome units.	0.75 miles	Under Review
380 Cambridge Avenue	Demolition of 32,000 square foot building and construction of 35,000 square foot commercial building	0.3 miles	Approved not yet under construction
901 California Avenue	Demolition of an existing 54,930 square foot, two-story office building and construction of a new two-story 55,583 square foot office building with a 2,709 square foot amenity space.	0.3 miles	Approved not et under construction
3150 El Camino Real	Mixed-use project with approximately 129 residential units and 2,800 square feet of retail space.	122 feet	Under Review
3300 El Camino Real	Construction of a new two-story, 50,355 sf office/R&D project with 40 percent surface parking and 60 percent below-grade parking. The proposal includes a 2,517 square foot amenity space.	98 feet	Approved not yet under construction
3585 El Camino Real	Demolition of an existing approximately 800 square foot commercial structure and construction of a new three-story approximately 6,252 square foot mixed-use building. The project includes three residential units and 3,126 square feet of office space.	0.2 miles	Approved not yet under construction

Source: City of Palo Alto. BuildingEye. Accessed March 28, 2023. https://paloalto.buildingeye.com/planning

For each resource area, cumulative impacts may occur over different geographic areas. For example, the project effects on air quality would combine with the effects of projects in the entire

air basin, whereas noise impacts would primarily be localized to the surrounding area. The geographic area that could be affected by the proposed project varies depending upon the type of environmental issue being considered. Section 15130(b)(3) of the CEQA Guidelines states that lead agencies should define the geographic scope of the area affected by the cumulative effect. Table 3.0-2 provides a summary of the different geographic areas used to evaluate cumulative impacts.

Table 3.0-2: Geographic Considerations in Cumulative Analysis

Resource Area	Geographic Area
Aesthetics	NVCAP sites and adjacent parcels
Air Quality	San Francisco Bay Area Air Basin
Biological Resources	NVCAP sites and adjacent parcels
Cultural Resources	NVCAP sites and adjacent parcels (subsurface resources); Citywide (historic resources)
Energy	Energy provider's territory
Greenhouse Gas Emissions	Planet-wide
Hazards and Hazardous Materials	NVCAP sites and adjacent parcels
Hydrology and Water Quality	Matadero watershed
Land Use and Planning	Citywide
Noise and Vibration	NVCAP sites and adjacent parcels
Transportation/Traffic	Citywide
Tribal Cultural Resources	NVCAP sites and adjacent parcels
Utilities and Service Systems	Citywide

3.1 Aesthetics

3.1.1 Environmental Setting

3.1.1.1 *Regulatory Framework*

State

Senate Bill 743 (2013)

Senate Bill (SB) 743 was adopted in 2013 and requires lead agencies to use alternatives to level of service (LOS) for evaluating transportation impacts, specifically vehicle miles traveled (VMT). SB 743 also included changes to CEQA that apply to transit-oriented developments, as related to aesthetics and parking impacts. Under SB 743, a project's aesthetic impacts will no longer be considered significant impacts on the environment if:

- The project is a residential or mixed-use residential project, or employment center project and
- The project is located on an infill site within a transit priority area (TPA).[14]

SB 743 also clarifies that local governments retain their ability to regulate a project's aesthetics impacts outside of the CEQA process. The majority of the NVCAP area is located within a designated TPA, except for small portions of the properties located on the west side of Lambert Avenue.[15]

Streets and Highway Code Sections 260 through 263

The California Scenic Highway Program (Streets and Highway Code, Sections 260 through 263) is managed by the California Department of Transportation (Caltrans). The program is intended to protect and enhance the natural scenic beauty of California highways and adjacent corridors through special conservation treatment. In Santa Clara County, the one state-designated scenic highway is State Route (SR) 9 from the Santa Cruz County line to the Los Gatos Town Limit. Eligible

[14] An "infill site" is defined as "a lot located within an urban area that has been previously developed, or on a vacant site where at least 75 percent of the perimeter of the site adjoins, or is separated only by an improved public right-of-way from, parcels that are developed with qualified urban uses." A "transit priority area" is defined as "an area within 0.5 mile of a major transit stop that is existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program or applicable regional transportation plan." A "major transit stop" means "a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods." Source: California Legislative Information. "Chapter 2.7. Modernization of Transportation Analysis for Transit-Oriented Infill Projects [21099- 21099.]." Accessed March 10, 2023. https://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?lawCode=PRC&division=13.&part=&chapter=2.7.&article=.

[15] Metropolitan Transportation Commission. Transit Priority Areas (2021). Accessed March 24, 2023. https://opendata.mtc.ca.gov/datasets/370de9dc4d65402d992a769bf6ac8ef5_1/explore?location=37.425375%2C-122.138002%2C17.55

State Scenic Highways (not officially designated) include: SR 17 from the Santa Cruz County line to SR 9, SR 35 from Santa Cruz County line to SR 9, Interstate 280 (I-280) from the San Mateo County line to SR 17, and the entire length of SR 152 within the County. There are no officially designated state-scenic highways in Palo Alto.[16]

Local

2030 Comprehensive Plan

The following policies in the City's Comprehensive Plan have been adopted for the purpose of reducing or avoiding impacts related to aesthetics and are applicable to the project.

Policy	Description
L-1.3	Infill development in the urban service area should be compatible with its surroundings and the overall scale and character of the city to ensure a compact, efficient development pattern.
L-1.7	Use coordinated area plans to guide development, such as to create or enhance cohesive neighborhoods in areas of Palo Alto where significant change is foreseeable. Address both land use and transportation, define the desired character and urban design traits of the areas, identify opportunities for public open space, parks and recreational opportunities, address connectivity to and compatibility with adjacent residential areas; and include broad community involvement in the planning process.
L-1.11	Hold new development to the highest development standards in order to maintain Palo Alto's livability and achieve the highest quality development with the least impacts.
L-3.1	Ensure that new or remodeled structures are compatible with the neighborhood and adjacent structures.
L-6.1	Promote high-quality design and site planning that is compatible with surrounding development and public spaces.
L-6.2	Use the Zoning Ordinance, design review process, design guidelines and Coordinated Area Plans to ensure high quality residential and commercial design and architectural compatibility.
L-6.4	In areas of the City having a historic or consistent design character, encourage the design of new development to maintain and support the existing character.
L-6.5	Guide development to respect views of the foothills and East Bay hills along public street corridors in the developed portions of the City.
L-6.6	Design buildings to complement streets and public spaces; to promote personal safety, public health and wellbeing; and to enhance a sense of community safety.
L-6.7	Where possible, avoid abrupt changes in scale and density between residential and non-residential areas and between residential areas of different densities. To promote compatibility and gradual transitions between land uses, place zoning district boundaries at mid-block locations rather than along streets wherever possible.
L-6.8	Support existing regulations that preserve exposure to natural light for single-family residences.

[16] City of Palo Alto. *Comprehensive Plan Update Final EIR*. SCH# 2014052101. August 30, 2017.

City of Palo Alto Municipal Code

Chapter 2.21, Architectural Review Board

Under Chapter 2.21 of the PAMC, the City maintains a City Council appointed citizen Architectural Review Board (ARB) to implement the aesthetic-preservation intent of the zoning ordinance by promoting high aesthetic quality that is harmonious with existing neighboring uses and enhances conditions onsite and in adjacent areas. The ARB provides recommendations on projects subject to Architectural Review to the Director of Planning & Development Services for final approval. Architectural Review projects may be appealed to the City Council.

Title 8, Trees and Vegetation

Title 8 of the PAMC establishes the City's regulations pertaining to Street Trees, Shrubs and Plants, Weed Abatement, and Tree Preservation and Management. Title 8 includes measures to ensure that trees throughout the City are maintained and protected as development occurs.

Chapter 8.10 is the City's Tree Preservation Ordinance, which protects trees in order to promote the health, safety, welfare, and quality of life of the residents. Specifically, the PAMC regulates specific types of trees on public and private property for the purpose of avoiding their removal or disfigurement without first being reviewed and permitted by the City's Planning or Public Works Department.

Chapter 16.61, Public Art for Private Development

The City's Public Art in Private Development ordinance went into effect in January 2014. The ordinance requires that developers with projects over 10,000 square feet and with an estimated construction valuation of more than $200,000 incorporate artwork that is accessible to the public on site or pay in-lieu fees equivalent to one percent of the construction valuation. The in-lieu fees are spent commissioning other public art projects throughout Palo Alto. Public Art in Private Development projects are presented to the Public Art Commission for input and approval of the art prior to the issuance of a building permit.

Title 18, Zoning

The City's zoning ordinance (Title 18 of the PAMC) establishes regulations that apply to specific areas of the city, and include provisions related to the visual quality of the built environment and both public and private spaces visible to passersby. The zoning ordinance is intended, among many other purposes, to preserve the visual quality of urban design in Palo Alto. Specific aesthetic requirements for all development include:

- Shielding of interior and exterior light sources to prevent visibility from off-site and using low-intensity and timed lighting in outdoor areas.
- Avoiding use of reflective surfaces that can create glare.
- Utilizing architectural features and landscaping to reduce apparent building mass and bulk.

- Screening of trash and storage areas, mechanical equipment, and loading docks.

The Zoning Ordinance also identifies specific requirements to reduce visual impacts on residential neighborhoods from adjacent non-residential uses, including open space buffers, landscaping, and fences or walls.

Chapter 18.13.060, Multiple Family Context-Based Design Criteria

Chapter 18.23.030 of the PAMC establishes performance criteria related to lighting and glare impacts for Multiple Family, Commercial, Manufacturing and Planned Community Districts to minimize the visual impacts of lighting on abutting or nearby residential sites and from adjacent roadways. Chapter 18.23.030 requires that exterior lighting in parking areas, pathways and common open space shall be designed to achieve the following: (1) provide for safe and secure access on the site, (2) achieve maximum energy efficiency, and (3) reduce impacts or visual intrusions on abutting or nearby properties from spillover and architectural lighting that projects upward. Other requirements include that where light source is visible from outside the property boundaries, such lighting shall not exceed 0.5 footcandle as measured at the abutting residential property line, and that interior lighting shall be designed to minimize nighttime glow visible from and/or intruding into nearby properties and shall be shielded to eliminate glare and light spillover beyond the perimeter property line of the development.

Chapter 18.23.050, Visual, Screening, and Landscaping

Chapter 18.23.050 of the PAMC establishes visual, screening, and landscaping criteria for Multiple Family, Commercial, Manufacturing and Planned Community Districts, in order to provide adequate screening for development abutting residential properties or properties with existing residential uses located within nonresidential zones (residential properties) to protect the visual character of residential development. Chapter 18.23.050 requires that landscape buffers and architectural design features be incorporated into the design of development in order to reduce apparent mass and bulk, which helps to maintain the character and visual quality of existing development while providing adequate privacy.

Chapter 18.24 Contextual Design Criteria

Chapter 8.24 of the PAMC establishes contextual design criteria intended to streamline review through objective design standards.

Chapter 18.40.130. Landscaping

Chapter 18.40.130 of the PAMC establishes landscaping regulations and performance criteria for all development within the city. The purpose of Chapter 18.40.130 is to encourage creative and sustainable landscape design that enhances structures, open space areas, streetscapes and parking areas in order to preserve native plant species and to provide tree shading and landscape design which can contribute to economic vitality and public health, as well as enhance the character of Palo Alto.

Chapter 18.76.020. Architectural Review

Chapter 18.76.020 establishes guidelines for architectural review of major and minor projects. Projects must be reviewed to carefully evaluate various aspects of their design and appearance, including their compatibility with the immediate environment of the site; compatibility with the design character of the surrounding area; harmonious transitions in scale and character in areas between different designated land uses; internal sense of order; amount and arrangement of open space; integration of natural features; and appropriate materials, textures, colors and details of construction and plant material, among other aspects.

3.1.1.2 *Existing Conditions*

Visual Character of the NVCAP Area

The NVCAP area is approximately 60-acres, roughly bounded by Oregon Expressway/Page Mill Road to the west, El Camino Real to the south, Lambert Avenue to the east, and the Caltrain rail corridor to the north. The NVCAP area, which is in an urbanized setting in Palo Alto, is developed with a mix of architecturally diverse single- and multi-family residential, office, commercial services (including automotive), and retail buildings. Housing within the NVCAP area consists primarily of single-family detached units mainly located along Olive Avenue and Pepper Avenue. Multi-family housing consists of the Park Plaza Apartments located on Park Boulevard in the eastern portion of the NVCAP area. Service commercial buildings are concentrated along El Camino Real, Lambert Avenue, and the southern segment of Portage Avenue. Offices are located primarily along Page Mill Road and Park Boulevard.

Density in the NVCAP area is greatest near El Camino Real, with limited spacing between buildings, narrower roadways, and small amounts of landscaping. The area opens up on the north side of Ash Street, where a significant amount of landscaping and surface parking divides development. Building heights in the NVCAP area range between one to three stories, and generally increase in height from El Camino Real going towards Park Boulevard. Views from Park Boulevard toward the NVCAP area are obscured by existing buildings and trees. From a bird's eye view, the most visually prominent building is the former Palo Alto Cannery located at the center of the NVCAP area at 340 Portage Avenue (also associated with the 200 Portage Avenue address) and is barely visible from many vantage points. The Cloudera building (located at 395 Page Mill Road) is also a visually prominent building in the NVCAP. Views from Page Mill Road are largely obscured by the Cloudera building and street trees. Views from Page Mill/Oregon Expressway toward Highway 101 (US 101) are obscured by existing development.

Visual Character of the Surrounding Area

The area surrounding the NVCAP site is urbanized, with predominantly single-family detached housing to the north and east, and buildings of greater height and density to the west and south occupied by a mix of non-residential businesses. Nearby neighborhoods include the Evergreen neighborhood to the west, Barron Park to the south, Charleston Meadow to the east, and Midtown to the north. The area opposite Oregon Expressway to the west of the NVCAP area, however,

consists of single- and multi-family housing of conventional, modern design and ranging between one and three stories in height. Immediately southwest of the NVCAP area, across the Oregon Expressway/Page Mill Road/El Camino Real intersection, are the Stanford/Palo Alto Community Playing Fields. Development opposite El Camino Real to the south consists of office, commercial and food service buildings with diverse architectural styles, and typical building heights of one to two stories, although Palo Alto Square contains two ten-story tall office buildings. Development across Lambert Avenue to the east consists of single- and multi-family residences, educational facilities, offices, and retail buildings ranging between one and two stories in height and featuring a mix of architectural styles. Development on the other side of the Caltrain rail corridor to the north consists of single-family detached housing, which is obscured from public views in the NVCAP area by existing multi-family and office developments located on the north side of Park Boulevard and the rail corridor itself.

Scenic Views

The Comprehensive Plan identifies the backdrop of hills to the southwest and the San Francisco Bay to the northeast as view corridors that are character-defining features of the City. The Comprehensive Plan also identifies "scenic routes" with high scenic value, and "primary gateways" that contribute to community identity and complement neighborhood character.

Within the NVCAP area, views of the southwestern hillsides and the San Francisco Bay are fully or partially obscured by intervening development and landscaping. Accordingly, the NVCAP area is not located in the path of any view corridors identified in Map L-4 of the Comprehensive Plan. The NVCAP area is adjacent to the Oregon Expressway scenic route and associated view corridor, and a primary gateway located at the intersection of Oregon Expressway and El Camino Real.

Light and Glare

Sources of light and glare are abundant in the urban environment of the NVCAP area, including but not limited to streetlights, parking lot lights, security lights, vehicular headlights, internal building lights, and reflective building surfaces and windows.

3.1.2 Impact Discussion

For the purpose of determining the significance of the project's impact on aesthetics, except as provided in Public Resources Code Section 21099, would the project:

1) Have a substantial adverse effect on a scenic vista?
2) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?
3) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?
4) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

3.1.2.1 *Thresholds of Significance*

Aesthetic values are, by their nature, subjective. Opinions as to what constitutes a degradation of visual character would differ among individuals. One of the best available means for assessing what constitutes a visually acceptable standard for new buildings is the City's design standards and implementation of those standards through the City's design process. The following discussion addresses the proposed changes to the visual setting of the NVCAP area and factors that are part of the community's assessment of the aesthetic values of a project's design, consistent with the assumptions in the 2030 Comprehensive Plan Update FEIR.

Pursuant to SB 743 (Public Resources Code section 21099[d][1]) "aesthetic and parking impacts of a residential, mixed-use residential, or employment center on an infill site within a transit priority area shall not be considered significant impacts on the environment." As noted above, the majority of the NVCAP area is located within a designated TPA, except for small portions of the properties located on the west side of Lambert Avenue.[17] Future residential and employment center development under the NVCAP in areas that meet the aforementioned criteria of SB 743 (refer to Section 3.1.1.1) would have less than significant aesthetic impacts. The discussion presented in Section 3.1.2.3 analyzes the potential impact of future development under the NVCAP that is not subject to SB 743 on aesthetics.

3.1.2.2 *2030 Comprehensive Plan Update FEIR – Aesthetics Conclusion*

The 2030 Comprehensive Plan Update FEIR concluded that build out under the Comprehensive Plan would result in less than significant impacts to aesthetics with adherence to mitigation measures that directed the City to include policies in the Comprehensive Plan that would ensure residential densities would not degrade the visual character or quality of the area (MM AES-1 and MM AES-4).

3.1.2.3 *Project Impacts*

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

As discussed in Section 3.1.1, scenic vistas in Palo Alto consist of view corridors of the southwestern hillsides and San Francisco Bay Area, scenic routes, and primary gateways.

The NVCAP area is not within the path of any view corridors, and public views of these scenic resources from within the NVCAP area are fully or partially obscured by intervening development and landscaping. The NVCAP area is visible from the Oregon Expressway scenic route and the Oregon Expressway/El Camino Real primary gateway ("Gateway"). While build out of the NVCAP could result in building heights of up to 55 feet (or 88 feet pursuant to state density bonus law) along El Camino Real and Oregon Expressway, views of scenic resources from Oregon Expressway

[17] Metropolitan Transportation Commission. Transit Priority Areas (2021). Accessed March 24, 2023. https://opendata.mtc.ca.gov/datasets/370de9dc4d65402d992a769bf6ac8ef5_1/explore?location=37.425375%2C-122.138002%2C17.55

and the Gateway when facing towards the NVCAP area would be fundamentally unchanged, since existing development and landscaping currently obscure views of the San Francisco Bay. As discussed under checklist question c) below, future development in the NVCAP area would be subject to review by the City's Architectural Review process, which would ensure design compatibility with the surrounding area and adherence with the policies set forth in the City's Comprehensive Plan and Municipal Code that govern scenic quality (refer to Section 3.1.1.1). Accordingly, the quality of views from Oregon Expressway and the Gateway would not be adversely affected. Furthermore, the Oregon Expressway view corridor, which faces towards the southwestern hillsides away from the NVCAP area, would not be obstructed.

For the reasons stated above, the NVCAP would not result in a substantial adverse effect on any scenic vistas. **(Same Impact as Approved Project [Less than Significant Impact])**

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

There are no state-scenic highways located in the City, and the NVCAP area is indistinguishable from surrounding development in views from the nearest portion of state-scenic highway (I-280, located approximately 2.5 miles southwest). Accordingly, the project would not damage scenic resources within a state-scenic highway. **(Less Impact than Approved Project [No Impact])**

c) In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

As documented in Section 3.1.1.2, the NVCAP site and surrounding area is urbanized. The NVCAP would create new land use designations and zoning districts and corresponding design requirements that would apply to the parcels located within the NVCAP area (refer to Figure 2.3-1). Future development under the NVCAP would be subject to Architectural Review to ensure design compatibility with the surrounding area and adherence with the policies set forth in the City's Comprehensive Plan and Municipal Code that govern scenic quality (refer to Section 3.1.1.1), which would ensure that future development is consistent with the new design guidelines and development restrictions associated with the proposed land use designations and zoning districts. The 2030 Comprehensive Plan Update FEIR determined that the Architectural Review process and adherence with the City's Comprehensive Plan policies identified in Section 3.1.1.1 would ensure future development complies with applicable zoning and other regulations governing scenic quality, and ensure future development does not adversely affect scenic quality. Consistent with the findings of the 2030 Comprehensive Plan Update FEIR, the NVCAP would not conflict with applicable zoning and other regulations governing scenic quality. **(Less Impact than Approved Project [Less than Significant Impact])**

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

New development under the NVCAP would add new sources of light and glare, however, these new sources would be consistent with the type and intensity of lighting and glare associated with existing uses in the NVCAP area. Further, future development would be required to comply with the City's Municipal Code related to lighting and glare performance (refer to Section 3.1.1.1) and undergo Architectural Review, which would ensure that future development is consistent with City regulations and design guidelines, including lighting and glare. Consistent with the findings of the 2030 Comprehensive Plan Update FEIR, adherence with the City's Municipal Code and the Architectural Review process would ensure that new sources of light and glare do not adversely affect day or nighttime views in the area. **(Same Impact as Approved Project [Less than Significant Impact])**

3.1.2.4 *Cumulative Impacts*

Would the project result in a cumulatively considerable contribution to a significant cumulative aesthetics impact?

The geographic area for cumulative aesthetic impacts is limited to the NVCAP area and adjacent parcels in which the NVCAP area would be visible.

Scenic Vistas

As discussed under checklist question a), the NVCAP would have a less than significant impact on scenic vistas. The NVCAP is not within the path of any view corridors identified in the Comprehensive Plan and, therefore, would not contribute to a cumulatively considerable impact to any view corridors. Views of the southwestern hillsides from Oregon Expressway and the Gateway would not be affected by build out of the NVCAP, and views from these scenic vistas facing towards the San Francisco Bay are already obscured by existing development and landscaping. Accordingly, the project would not contribute to a cumulatively considerable impact on scenic vistas. **(Same Impact as Approved Project [Less than Significant Cumulative Impact])**

Scenic Resources Within a State-Scenic Highway

As discussed under checklist question b), the NVCAP would have no impact on scenic resources within a state-scenic highway and, therefore, would not contribute to a cumulatively considerable impact. **(Less Impact than Approved Project [No Cumulative Impact])**

Conflicts with Regulations Governing Scenic Quality

As discussed under checklist question c), future development under the NVCAP would be subject to design review by the City's Architectural Review Board, which would ensure consistency with policies set forth in the City's Comprehensive Plan and Municipal Code that govern scenic quality.

The NVCAP would therefore be consistent with all regulations governing scenic quality, and the NVCAP would not exempt any cumulative projects within the NVCAP site or surrounding area from undergoing design review. Accordingly, the project would not contribute to a cumulatively considerable impact on scenic quality. **(Same Impact as Approved Project [Less than Significant Cumulative Impact])**

Light and Glare

As discussed under checklist question d), future development under the NVCAP would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. Future development under the NVCAP would be required to comply with the City's Municipal Code related to lighting and glare performance (refer to Section 3.1.1.1) and undergo Architectural Review, which would ensure that future development is consistent with City regulations and design guidelines, including lighting and glare. The NVCAP would not exempt any cumulative projects within the NVCAP site or surrounding area from complying with the City's Municipal Code or undergoing design review. Accordingly, the project would not contribute to a cumulatively considerable impact on light and glare. **(Same Impact as Approved Project [Less than Significant Cumulative Impact])**

3.2 Air Quality

The following discussion is based, in part, on Existing Conditions (2023) and Proposed Conditions (2040) model runs conducted using the California Emissions Estimator Model (CalEEMod) Version 2022.1.1.7. Copies of this report, dated April 5, 2023, are attached to this SEIR as Appendix B.

3.2.1 Environmental Setting

3.2.1.1 *Background Information*

Criteria Pollutants

Air quality in the Bay Area is assessed related to six common air pollutants (referred to as criteria pollutants), including ground-level ozone (O_3), nitrogen oxides (NO_x), particulate matter (PM), carbon monoxide (CO), sulfur oxides (SO_x), and lead.[18] Criteria pollutants are regulated because they result in health effects. An overview of the sources of criteria pollutants and their associated health are summarized in Table 3.2-1. The most commonly regulated criteria pollutants in the Bay Area are discussed further below.

Table 3.2-1: Health Effects of Air Pollutants

Pollutants	Sources	Primary Effects
O_3	Atmospheric reaction of organic gases with nitrogen oxides in sunlight	• Aggravation of respiratory and cardiovascular diseases • Irritation of eyes • Cardiopulmonary function impairment
Nitrogen Dioxide (NO_2)	Motor vehicle exhaust, high temperature stationary combustion, atmospheric reactions	• Aggravation of respiratory illness • Reduced visibility
Fine Particulate Matter ($PM_{2.5}$) and Coarse Particulate Matter (PM_{10})	Stationary combustion of solid fuels, construction activities, industrial processes, atmospheric chemical reactions	• Reduced lung function, especially in children • Aggravation of respiratory and cardiorespiratory diseases • Increased cough and chest discomfort • Reduced visibility
Toxic Air Contaminants (TACs)	Cars and trucks, especially diesel-fueled; industrial sources, such as chrome platers; dry cleaners and service stations; building materials and products	• Cancer • Chronic eye, lung, or skin irritation • Neurological and reproductive disorders

High O_3 levels are caused by the cumulative emissions of reactive organic gases (ROG) and NO_x. These precursor pollutants react under certain meteorological conditions to form high O_3 levels.

[18] The area has attained both state and federal ambient air quality standards for CO. The project does not include substantial new emissions of sulfur dioxide or lead. These criteria pollutants are not discussed further.

Controlling the emissions of these precursor pollutants is the focus of the Bay Area's attempts to reduce O_3 levels. The highest O_3 levels in the Bay Area occur in the eastern and southern inland valleys that are downwind of air pollutant sources.

PM is a problematic air pollutant of the Bay Area. PM is assessed and measured in terms of respirable particulate matter or particles that have a diameter of 10 micrometers or less (PM_{10}) and fine particulate matter where particles have a diameter of 2.5 micrometers or less ($PM_{2.5}$). Elevated concentrations of PM_{10} and $PM_{2.5}$ are the result of both region-wide emissions and localized emissions.

Toxic Air Contaminants

TACs are a broad class of compounds known to have health effects. They include but are not limited to criteria pollutants. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, diesel fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter [DPM] near a freeway).

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs. Diesel exhaust is a complex mixture of gases, vapors, and fine particles. Medium- and heavy-duty diesel trucks represent the bulk of DPM emissions from California highways. The majority of DPM is small enough to be inhaled into the lungs. Most inhaled particles are subsequently exhaled, but some deposit on the lung surface or are deposited in the deepest regions of the lungs (most susceptible to injury).[19] Chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the California Air Resources Board (CARB).

Sensitive Receptors

Some groups of people are more affected by air pollution than others. CARB has identified the following persons who are most likely to be affected by air pollution: children under 16, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, and elementary schools.

[19] California Air Resources Board. "Overview: Diesel Exhaust and Health." Accessed March 24, 2023. https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health.

3.2.1.2 *Regulatory Framework*

Federal and State

Clean Air Act

At the federal level, the United States Environmental Protection Agency (U.S. EPA) is responsible for overseeing implementation of the Clean Air Act and its subsequent amendments. The federal Clean Air Act requires the EPA to set national ambient air quality standards for the six common criteria pollutants (discussed previously), including PM, O_3, CO, SO_x, NO_x, and lead.

CARB is the state agency that regulates mobile sources throughout the state and oversees implementation of the state air quality laws and regulations, including the California Clean Air Act. The EPA and the CARB have adopted ambient air quality standards establishing permissible levels of these pollutants to protect public health and the climate. Violations of ambient air quality standards are based on air pollutant monitoring data and are determined for each air pollutant. Attainment status for a pollutant means that a given air district meets the standard set by the EPA and/or CARB.

Risk Reduction Plan

To address the issue of diesel emissions in the state, CARB developed the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles. In addition to requiring more stringent emission standards for new on-road and off-road mobile sources and stationary diesel-fueled engines to reduce particulate matter emissions by 90 percent, the plan involves application of emission control strategies to existing diesel vehicles and equipment to reduce DPM (in additional to other pollutants). Implementation of this plan, in conjunction with stringent federal and CARB-adopted emission limits for diesel fueled vehicles and equipment (including off-road equipment), will significantly reduce emissions of DPM and NO_X.

Regional

2017 Clean Air Plan

The Bay Area Air Quality Management District (BAAQMD) is the agency primarily responsible for assuring that the federal and state ambient air quality standards are maintained in the San Francisco Bay Area. Regional air quality management districts, such as BAAQMD, must prepare air quality plans specifying how state and federal air quality standards will be met. BAAQMD's most recently adopted plan is the Bay Area 2017 Clean Air Plan (2017 CAP). The 2017 CAP focuses on two related BAAQMD goals: protecting public health and protecting the climate. To protect public health, the 2017 CAP describes how BAAQMD will continue its progress toward attaining state and federal air quality standards and eliminating health risk disparities from exposure to air pollution among Bay Area communities. To protect the climate, the 2017 CAP includes control measures designed to reduce emissions of methane and other super-greenhouse gases (GHGs) that are

potent climate pollutants in the near-term, and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.[20]

CEQA Air Quality Guidelines

The BAAQMD CEQA Air Quality Guidelines are intended to serve as a guide for those who prepare or evaluate air quality impact analyses for projects and plans in the San Francisco Bay Area. Jurisdictions in the San Francisco Bay Area Air Basin utilize the thresholds and methodology for assessing air quality impacts developed by BAAQMD within their CEQA Air Quality Guidelines. The guidelines include information on legal requirements, BAAQMD rules, methods of analyzing impacts, and recommended mitigation measures.

Local

2030 Comprehensive Plan

The following policies in the City's Comprehensive Plan have been adopted for the purpose of reducing or avoiding impacts related to air quality and are applicable to the project.

Policy	Description
N-5.1	Support regional, State, and federal programs that improve air quality in the Bay Area because of its critical importance to a healthy Palo Alto.
N-5.2	Support behavior changes to reduce emissions of particulates from automobiles.
N-5.3	Reduce emissions of particulates from, manufacturing, dry cleaning, construction activity, grading, wood burning, landscape maintenance, including leaf blowers and other sources.
N-5.4	All potential sources of odor and/or toxic air contaminants shall be adequately buffered, or mechanically or otherwise mitigated to avoid odor and toxic impacts that violate relevant human health standards.
N-5.5	Support the BAAQMD in its efforts to achieve compliance with existing air quality regulations by continuing to require development applicants to comply with BAAQMD construction emissions control measures and health risk assessment requirements.
N-5.6	Mitigate potential sources of toxic air contaminants through siting or other means to reduce human health risks and meet the BAAQMD's applicable threshold of significance. When siting new sensitive receptors such as schools, day care facilities, parks or playgrounds, medical facilities and residences within 1,000 feet of stationary sources of toxic air contaminants or roadways used by more than 10,000 vehicles per day, require projects to consider potential health risks and incorporate adequate precautions such as high-efficiency air filtration into project design.

City of Palo Alto Municipal Code

The City of Palo Alto Municipal Code outlines several requirements for new development that would reduce air quality impacts:

[20] BAAQMD. *Final 2017 Clean Air Plan.* April 19, 2017. http://www.baaqmd.gov/plans-and-climate/air-quality-plans/current-plans.

- Chapter 5.24, Construction and Demolition Debris Diversion Facilities: Requires new development to comply with the waste diversion requirements of the California Green Standards Building Code (CALGreen) in order to divert 50 percent of the construction and demolition debris from landfills.
- Chapter 5.30, Expanded Polystyrene and Non-Recyclable Food Service Containers: Prohibits food vendors from provided prepared food in disposable containers made of polystyrene or non-recyclable plastic in order to reduce waste sent to landfills.
- Chapter 5.35, Retail and Food Service Establishment Checkout Bag Requirements: Prohibits retail establishments in Palo Alto from providing single-use plastic bags at checkout (with limited exceptions).
- Chapter 8.10, Tree Preservation and Management Regulations, Prohibits removal of protected trees unless they are dead, hazardous, or a detriment to or crowding of an adjacent protected tree.
- Chapter 10.70, Trip Reduction and Travel Demand: This ordinance requires the City to adopt and implement a trip reduction and travel demand ordinance. While this code section references the now rescinded BAAQMD Regulation 13, Rule 1, BAAQMD has since adopted a new Rule (Regulation 14, Rule 1) known as the Bay Area Commuter Benefits Program, which requires employers with 50 or more full-time employees in the Bay Area to provide commuter benefits to their employees.
- Chapter 12.32, Water Use Regulations: Palo Alto requires residents and business in the City to use water in a sustainable, efficient manner and prohibits potable water run-off into gutters, driveways, sidewalks, streets, and other landscape areas; use of a hose without a shut-off valve; and requires broken landscaping systems to be repaired as soon as possible.

Palo Alto Green Building Program

The City of Palo Alto requires compliance with the local Green Building Ordinance, which is encompassed in Chapter 16.14 of the Palo Alto Municipal Code. The Green Building Ordinance includes the mandatory measures of CALGreen (Title 24, Part 11), including the City's landscape water efficiency standards adopted under the Model Water Efficient Landscape Ordinance (WELO); and also requires projects in the city to adhere to even more stringent sustainability measures by expanding the types of projects that are covered under CALGreen.

3.2.1.3 *Existing Conditions*

The project is in Santa Clara County, which is in the San Francisco Bay Area Air Basin. The Bay Area is considered a non-attainment area for ground-level O_3 and $PM_{2.5}$ under both the federal Clean Air Act and state Clean Air Act. The area is also considered non-attainment for PM_{10} under the state act, but not the federal act. The area has attained both state and federal ambient air quality standards for CO. As part of an effort to attain and maintain ambient air quality standards for O_3 and PM_{10}, BAAQMD has established thresholds of significance for these air pollutants and their precursors. These thresholds are for O_3 precursor pollutants (ROG and NO_X), PM_{10}, and $PM_{2.5}$, and apply to both construction period and operational period impacts.

Table 3.2-2 shows violations of state and federal standards at the monitoring station in Redwood City (the nearest monitoring station to the NVCAP area) during the 2017-2019 period (the most recent years for which data is available).[21]

Table 3.2-2: Ambient Air Quality Standards Violations

		Days Exceed Standard		
Pollutant	**Standard**	**2017**	**2018**	**2019**
Ozone	State 1-hour	2	0	0
	Federal 8-hour	2	0	2
Carbon Monoxide	State 1-hour	0	0	0
	Federal 8-hour	0	0	0
Nitrogen Dioxide	State 1-hour	0	0	0
PM_{10}	State 24-hour	--	--	--
	Federal 24-hour	--	--	--
$PM_{2.5}$	State 24-hour	--	--	--
	Federal 24-hour	6	13	0

Source: Bay Area Air Quality Management District. "Annual Bay Area Air Quality Summaries." Accessed March 24, 2023. http://www.baaqmd.gov/about-air-quality/air-quality-summaries

There are existing single-family residences located in the NVCAP area along Olive Avenue and Pepper Avenue, which would not be removed or redeveloped under the NVCAP and, therefore, would be the nearest sensitive receptors during construction activities. Outside of the NVCAP area, the nearest sensitive receptors are the multi-family units located along Oregon Expressway and Park Boulevard opposite the NVCAP area, and the single-family units located opposite the NVCAP area along Lambert Avenue.

3.2.2 Impact Discussion

For the purpose of determining the significance[22] of the project's impact on air quality, would the project:

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

[21] The Redwood City station does not monitor PM_{10}.

[22] Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the determinations.

2) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?
3) Expose sensitive receptors to substantial pollutant concentrations?
4) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

3.2.2.1 *Thresholds of Significance*

As discussed in CEQA Guidelines Section 15064(b), the determination of whether a project may have a significant effect on the environment calls for judgment on the part of the Lead Agency and must be based to the extent possible on scientific and factual data. The City of Palo Alto has considered the air quality thresholds updated by BAAQMD in May 2017 and regards these thresholds to be based on the best information available for the San Francisco Bay Area Air Basin and conservative in terms of the assessment of health effects associated with TACs and $PM_{2.5}$.

The applicable BAAQMD CEQA thresholds for a plan-level document is summarized in Table 3.2-3. There are no construction thresholds for a program-level document since construction activity and intensity are determined on a project-by-project basis.

Table 3.2-3: BAAQMD Plan-Level Air Quality Significance Thresholds

Impact	Threshold of Significance
Criteria Air Pollutant and Precursor Emissions	1. Consistency with Current Air Quality Plan control measures 2. Projected vehicle miles traveled (VMT) or vehicle trip increase is less than or equal to projected population increase
Health Risks	Land use diagram identifies special overlay zones around existing and planned sources of TACs and $PM_{2.5}$, including special overlay zones of at least 500 feet (or Air District-approved modeled distance) on each side of all freeways and high-volume roadways, and plan identifies goals, policies, and objectives to minimize potentially adverse impacts. For this analysis – overlay zones are based on potential for sources to result in the following impacts: 1. Excess cancer risk >10.0 chances per million 2. Annual $PM_{2.5}$ Concentration > 0.3 µg/m3* 3. Hazard Index >1.0
Odors	Identify the location, and include policies to reduce the impacts, of existing or planned sources of odors

* A concentration of 1 µg/m3 means that one cubic meter of air contains one microgram (10-6 grams) of pollutant.

For informational purposes only, the BAAQMD project-level thresholds that would be applied to future individual projects are shown in Table 3.2-4.

Table 3.2-4: BAAQMD Project-Level Air Quality Significance Thresholds[1]

Pollutant	Construction Thresholds	Operation Thresholds	
	Average Daily Emissions (pounds/day)	Annual Daily Emissions (pounds/year)	Annual Average Emissions (tons/year)
Criteria Air Pollutants			
ROG, NO_x	54	54	10
PM_{10}	82 (exhaust)	82	15
$PM_{2.5}$	54 (exhaust)	54	10
CO	Not Applicable	9.0 ppm (eight-hour) or 20.0 ppm (one-hour)	
Fugitive Dust	Dust Control Measures/Best Management Practices	Not Applicable	
Health Risks and Hazards for New Sources (within a 1,000-foot Zone of Influence)			
Health Hazard	**Single Source**	**Combined Cumulative Sources**	
Excess Cancer Risk	10 per one million	100 per one million	
Hazard Index	1.0	10.0	
Incremental Annual $PM_{2.5}$	0.3 µg/m^3	0.8 µg/m^3 (average)	

[1] Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines*. May 2017.

3.2.2.2 *2030 Comprehensive Plan Update FEIR – Air Quality Conclusions*

The 2030 Comprehensive Plan Update FEIR concluded that build out under the Comprehensive Plan (with mitigation incorporated) would result in less than significant impacts to the 2010 Clean Air Plan (since replaced with the 2017 Clean Air Plan), the exposure of sensitive receptors to substantial concentrations of air pollutants during construction and operation, and odors, but significant and unavoidable impacts associated with increases in operational criteria air pollutant emissions. The mitigation measures prescribed in the 2030 Comprehensive Plan FEIR are identified below.

MM AIR-1: To ensure consistency with the 2010 Bay Area Clean Air Plan, the proposed Plan shall include policies that achieve the following:

- Reduction in emissions of particulates from automobiles, manufacturing, construction activity, and other sources (e.g., dry cleaning, wood burning, landscape maintenance).
- Support for regional, State, and federal programs that improve air quality.

- Support for transit, bicycling, and walking.
- Mix of uses (e.g., housing near employment centers) and development types (e.g., infill) to reduce the need to drive.

MM AIR-2a: The City shall amend its local CEQA Guidelines and Municipal Code to require, as part of the development approval process, that future development projects comply with the current BAAQMD basic control measures for reducing construction emissions of PM_{10} (Table 8-2, Basic Construction Mitigation Measures Recommended for All Proposed Projects, of the BAAQMD CEQA Guidelines).

MM AIR-2b: The City shall amend its local CEQA Guidelines to require that, prior to issuance of construction permits, development project applicants that are subject to CEQA and have the potential to exceed the BAAQMD screening criteria listed in the BAAQMD CEQA Guidelines shall prepare and submit to the City of Palo Alto a technical assessment evaluating potential project construction related air quality impacts. The evaluation shall be prepared in conformance with BAAQMD methodology in assessing air quality impacts. If construction-related criteria air pollutants are determined to have the potential to exceed the BAAQMD thresholds of significance, as identified in the BAAQMD CEQA Guidelines, the City of Palo Alto shall require that applicants for new development projects incorporate mitigation measures (Table 8-2, Additional Construction Mitigation Measures Recommended for Projects with Construction Emissions Above the Threshold, of the BAAQMD CEQA Guidelines or applicable construction mitigation measures subsequently approved by BAAQMD) to reduce air pollutant emissions during construction activities to below these thresholds. These identified measures shall be incorporated into all appropriate construction documents (e.g., construction management plans) submitted to the City.

MM AIR-2c: To ensure that development projects that have the potential to exceed the BAAQMD screening criteria air pollutants listed in the BAAQMD CEQA Guidelines reduce regional air pollutant emissions below the BAAQMD thresholds of significance, the proposed Plan shall include policies that require compliance with BAAQMD requirements, including BAAQMD CEQA Guidelines.

MM AIR-2d: Implement Mitigation Measure TRANS-1a and Trans 1b. In addition, to reduce long-term air quality impacts by emphasizing walkable neighborhoods and supporting alternative modes of transportation, the proposed Plan shall include policies that achieve the following:

- Enhanced pedestrian and bicycle connections between commercial and mixed-use centers.

MM AIR-3a: The City of Palo Alto shall updates its CEQA Procedures to require that future non-residential projects within the city that: 1) have the potential to generate 100 or more diesel truck trips per day or have 40 or more trucks with operating diesel-powered TRUs, and 2) are within 1,000 feet of a sensitive land use (e.g., residential, schools, hospitals, nursing homes), as measured from the property line of a proposed project to the property line of the nearest sensitive use, shall submit a health risk assessment (HRA) to the City of Palo Alto prior to future discretionary project approval or shall comply with best practices recommended for implementation by the BAAQMD.

The HRA shall be prepared in accordance with policies and procedures of the State Office of Environmental Health Hazard Assessment and the Bay Area Air Quality Management District. If the HRA shows that the incremental cancer risk exceeds the BAAQMD significance thresholds, the applicant will be required to identify and demonstrate that mitigation measures are capable of reducing potential cancer and noncancer risks to an acceptable level, including appropriate enforcement mechanisms.

Mitigation measures and best practices may include but are not limited to:

- Restricting idling on-site beyond Air Toxic Control Measures idling restrictions, as feasible.
- Electrifying warehousing docks.
- Requiring use of newer equipment and/or vehicles.
- Restricting off-site truck travel through the creation of truck routes.

Mitigation measures identified in the project-specific HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site development plan as a component of a proposed project.

MM AIR-3b: To ensure that new industrial and warehousing projects with the potential to generate new stationary and mobile sources of air toxics that exceed the BAAQMD project-level and/or cumulative significance thresholds for toxic air contaminants and $PM_{2.5}$ listed in the BAAQMD CEQA Guidelines reduce emissions below the BAAQMD thresholds of significance, amend the City's CEQA guidelines to require compliance with BAAQMD requirements.

MM AIR-3c: The proposed Plan shall include policies to mitigate potential sources of toxic air contaminants through siting or other means to reduce human health risks and meet the Bay Area Air Quality Management District's applicable threshold of significance. Policies shall also require that new sensitive land use projects (e.g., residences, schools, hospitals, nursing homes, parks or playgrounds, and day care centers) within 1,000 feet of a major stationary sources of TACs and roadways with traffic volumes over 10,000 vehicles per day consider potential

health risks and incorporate adequate precautions, such as high-efficiency air filtration, into project design.

MM AIR-4: To reduce odor impacts, the proposed Plan shall include policies requiring:

- Buffers, mechanical, and other mitigation methods to avoid creating a nuisance

MM TRANS-1a: Adopt a programmatic approach to reducing motor vehicle traffic, with the goal of achieving no net increase in peak-hour motor vehicle trips from new development, with an exception for uses that directly contribute to the neighborhood character and diversity of Palo Alto (such as ground floor retail and below-market-rate housing). The program should, at a minimum, require new development projects above a specific size threshold to prepare and implement a Transportation Demand Management (TDM) Plan to achieve the following reduction in peak-hour motor vehicle trips from the rates included in the Institute of Transportation Engineers' Trip Generation Manual for the appropriate land use category and size. These reductions are deemed aggressive, yet feasible, for the districts indicated.

- 45 percent reduction in the Downtown district
- 35 percent reduction in the California Avenue area
- 30 percent reduction in the Stanford Research Park
- 30 percent reduction in the El Camino Real Corridor
- 20 percent reduction in other areas of the city

TDM Plans must be approved by the City and monitored by the property owner or the project proponent on an annual basis. The Plans must contain enforcement mechanisms or penalties that accrue if targets are not met and may achieve reductions by contributing to citywide or employment district shuttles or other proven transportation programs that are not directly under the property owner's control.

MM TRANS-1b: Require new development projects to pay a Transportation Impact for all those peak-hour motor vehicle trips that cannot be reduced via TDM measures. Fees collected would be used for capital improvements aimed at reducing motor vehicle trips and motor vehicle traffic congestion.

3.2.2.3 *Project Impacts*

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

2017 Clean Air Plan

The BAAQMD CEQA Air Quality Guidelines set forth criteria for determining consistency with the 2017 CAP. In general, a project is considered consistent if it: a) supports the primary goals of the 2017 CAP; b) includes relevant control measures; and c) does not interfere with implementation of 2017 CAP control measures.

Table 3.2-5: 2017 Clean Air Plan Control Measures

Control Measures	Project Consistency with Measure Intent
Transportation Measures	
TR1 – Clean Air Teleworking Initiative: Develop teleworking best practices for employers and develop additional strategies to promote telecommuting. Promote teleworking on Spare the Air Days**.**	In accordance with Comprehensive Plan Policy T-1.2, the City through its TMA collaborates with Palo Alto employers and business owners on reducing vehicle trips by informing workers of transportation alternatives (including teleworking) and requiring TDM programs for qualifying projects that include measures for reducing vehicle trips, such as teleworking incentives and requirements. As discussed in Section 2.3.7, future development within the NVCAP area would be required to prepare TDM plans that achieve a 35 percent reduction in vehicle trips. Therefore, the NVCAP would be consistent with this measure.
TR2 – Trip Reduction Programs: Implement the regional Commuter Benefits Program (Rule 14-1) that requires employers with 50 or more Bay Area employees to provide commuter benefits. Encourage trip reduction policies and programs in local plans, e.g., general and specific plans while providing grants to support trip reduction efforts. Encourage local governments to require mitigation of vehicle travel as part of new development approval, to adopt transit benefits ordinances in order to reduce transit costs to employees, and to develop innovative ways to encourage rideshare, transit, cycling, and walking for work trips. Fund various employer-based trip reduction programs.	The purpose of 2017 CAP control measure TR2 is to reduce vehicle trips. As discussed in Section 2.3.7, future development within the NVCAP area would be required to prepare TDM plans with measures (such as transit benefits, ridesharing incentives, etc.) that achieve a 35 percent reduction in vehicle trips. Therefore, the NVCAP would be consistent with this measure.
TR8 – Ridesharing, Last-Mile Connection: Promote carpooling and vanpooling by providing funding to continue regional and local ridesharing programs, and support the expansion of carsharing programs.	The purpose of 2017 CAP control measure TR8 is to reduce vehicle trips. As discussed in Section 2.3.7, future development within the NVCAP area would be required to prepare TDM plans with measures (such as

Control Measures	Project Consistency with Measure Intent
Provide incentive funding for pilot projects to evaluate the feasibility and cost-effectiveness of innovative ridesharing and other last-mile solution trip reduction strategies. Encourage employers to promote ridesharing and carsharing to their employees.	carpooling and vanpooling) that would achieve a 35 percent reduction in vehicle trips. Therefore, the NVCAP would be consistent with this measure.
TR9 – Bicycle and Pedestrian Access and Facilities: Encourage planning for bicycle and pedestrian facilities in local plans, e.g., general and specific plans, fund bike lanes, routes, paths and bicycle parking facilities.	As discussed in Section 3.11 Transportation under checklist question a), the NVCAP includes design standards that promote and facilitate bicycle and pedestrian travel. Additionally, the NVCAP would reduce on-street parking on Park Boulevard to create opportunities for future bike lanes, and construct bike lanes on Olive Avenue, Ash Street, and Portage Avenue. Therefore, the NVCAP would be consistent with this measure.
TR13 – Parking Policies: Encourage parking policies and programs in local plans, e.g., reduce minimum parking requirements; limit the supply of off-street parking in transit-oriented areas; unbundle the price of parking spaces; support implementation of demand-based pricing in high-traffic areas.	Comprehensive Plan Policy T-5.1 requires parking demand be managed without the use of on-street parking, and requires parking requirements be reduced over time as parking demand decreases. Future development would be required to prepare TDM plans with measures that reduce parking demand, including discouraging vehicle travel by unbundling parking or using demand-based pricing for parking spaces. Therefore, the NVCAP would be consistent with this measure.
Energy Measures	
EN2 – Decrease Electricity Demand: Work with local governments to adopt additional energy-efficiency policies and programs. Support local government energy efficiency program via best practices, model ordinances, and technical support. Work with partners to develop messaging to decrease electricity demand during peak times.	The Palo Alto Municipal Code requires new residential construction and new non-residential construction (>1,000 square feet) to meet CALGreen Tier 2 requirements. Residential building additions/alterations (>1,000 square feet) and new non-residential construction and alterations (<1,000 square feet) are required to comply with CALGreen Tier 1 requirements. Both CALGreen Tier 1 and Tier 2 requirements are designed to reduce electricity consumption through building design and operation. As noted in Section 2.4.4, future development in the NVCAP area would minimize heat gain through the design of building facades, reducing electricity demand associated with air conditioning. Further, Comprehensive Plan policies N-7.4 and N-7.5 encourage energy conservation and use of energy efficient appliances and lighting. Therefore, the NVCAP would be consistent with this measure.
Building Measures	
BL1 – Green Buildings: Collaborate with partners such as KyotoUSA to identify energy-related	The purpose of 2017 CAP control measure BL1 is to reduce GHG emissions associated with energy

Control Measures	Project Consistency with Measure Intent
improvements and opportunities for onsite renewable energy systems in school districts; investigate funding strategies to implement upgrades. Identify barriers to effective local implementation of the California Green Building Standards Code (CALGreen; Title 24) statewide building energy code; develop solutions to improve implementation/enforcement. Work with Association of Bay Area Governments (ABAG's) BayREN program to make additional funding available for energy-related projects in the buildings sector. Engage with additional partners to target reducing emissions from specific types of buildings.	consumption by buildings. As discussed above, future development would reduce electricity demand through compliance with CALGreen and building design. As documented in Section 3.5 Energy under checklist question a), build out of the NVCAP would result in a net reduction in natural gas consumption. Additionally, Palo Alto provides 100 percent carbon neutral natural gas and electricity and, therefore, GHG emissions associated with building energy usage would be zero. Therefore, the NVCAP would be consistent with this measure.
BL2 – Decarbonize Buildings: Explore potential Air District rulemaking options regarding the sale of fossil fuel-based space and water heating systems for both residential and commercial use. Explore incentives for property owners to replace their furnace, water heater or natural-gas powered appliances with zero-carbon alternatives. Update Air District guidance documents to recommend that commercial and multi-family developments install ground source heat pumps and solar hot water heaters.	As discussed above, Palo Alto provides 100 percent carbon neutral natural gas and electricity, meaning all future development under the NVCAP would be fully decarbonized. Therefore, the NVCAP would be consistent with this measure.
BL4 – Urban Heat Island Mitigation: Develop and urge adoption of a model ordinance for "cool parking" that promotes the use of cool surface treatments for new parking facilities, as well existing surface lots undergoing resurfacing. Develop and promote adoption of model building code requirements for new construction or reroofing/roofing upgrades for commercial and residential multi-family housing.	Comprehensive Plan Policy T-5.8 encourages the use of photovoltaic panel or tree canopies in parking lots or on top of parking structures to provide cover, thus reducing the urban heat island effect. Comprehensive Plan Program T5.8.1 and Program T5.8.2 seek to retrofit existing City- and privately-owned surface parking lots to reduce the urban heat island effect. Therefore, the NVCAP would be consistent with this measure.
Natural and Working Lands Measures	
NW2 – Urban Tree Planting: Develop or identify an existing model municipal tree planting ordinance and encourage local governments to adopt such an ordinance. Include tree planting recommendations, BAAQMD's technical guidance, best management practices for local plans, and CEQA review.	The City's Tree Preservation and Management Ordinance requires compliance with the Tree Technical Manual, which outlines the requirements for removal and replacement of trees consistent with the tree canopy requirements. Tree Removal Permits are required prior to the removal of protected, public, and designated trees as defined in Palo Alto Municipal Code Chapter 8.10. Therefore, the NVCAP would be consistent with this measure.

Control Measures	Project Consistency with Measure Intent
Waste Management Measures	
WA4 – Recycling and Waste Reduction: Develop or identify and promote model ordinances on community-wide zero waste goals and recycling of construction and demolition materials in commercial and public construction projects.	The Palo Alto Municipal Code includes multiple ordinances designed to increase recycling and reduce waste. Pursuant to Section 5.24.040 of the Municipal Code, a salvage survey must be conducted which identifies all potentially re-useable material as well as post-deconstruction verification of the recycling or reuse of the identified materials in order to obtain a construction permit. All projects in the City are required to recycle or salvage for reuse a minimum of 80 percent of the non-hazardous construction and demolition debris. 100 percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing, and inert solids such as concrete and asphalt, are required to be reused or recycled. Therefore, the NVCAP would be consistent with this measure.
Water Measures	
WR2 – Support Water Conservation: Develop a list of best practices that reduce water consumption and increase on-site water recycling in new and existing buildings; incorporate into local planning guidance.	Municipal Code Chapter 12.32 includes provisions to reduce unnecessary water waste, and includes landscaping requirements that reduce outdoor water use in accordance with the State Landscape Model Ordinance. Chapters 16.12 and 16.14 contain requirements related to recycled water, including new construction requirements related to dual plumbing and irrigation. Therefore, the NVCAP would be consistent with this measure.

As documented in Table 3.2-5, future development under the NVCAP would comply with all applicable 2017 CAP control measures. Therefore, the NVCAP would not conflict with or obstruct the implementation of an applicable air quality plan. **(Same Impact as Approved Project [Less than Significant Impact])**

Criteria Air Pollutant Emissions

Construction Period Emissions

The BAAQMD CEQA Air Quality Guidelines do not identify plan-level thresholds for construction emissions and site-specific construction schedules and equipment are not known at this time. Therefore, air pollutant emissions have not been quantified at the project-level. Nevertheless, future developments proposed under the NVCAP would be required to implement mitigation measures AIR-2a and AIR-2b (refer to Section 3.2.2.2).

Operational Period Emissions

As discussed in Section 3.2.1.2, the Bay Area is considered a non-attainment area for ground-level ozone and $PM_{2.5}$ under both the federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment for PM_{10} under the California Clean Air Act, but not the federal act. The area has attained both state and federal ambient air quality standards for CO. As part of an effort to attain and maintain ambient air quality standards for O_3 and PM (i.e., $PM_{2.5}$ and PM_{10}), BAAQMD has established plan- and project-level thresholds of significance for these air pollutants and their precursors. These thresholds are for O_3 precursor pollutants (ROG and NOx), PM_{10}, and $PM_{2.5}$ and apply to both construction period and operational period impacts for projects.

Pursuant to the plan-level thresholds of significance for criteria air pollutant emissions and their precursors shown in Table 3.2-3, plans that are 1) inconsistent with the control measures provided in the 2017 CAP, or 2) would increase VMT at a rate that would exceed the rate of population increase, are considered to have a significant and unavoidable criteria air pollutant emissions impact. Table 3.2-6 below compares the increase in service population with the increase in daily trips and VMT associated with build out of the NVCAP.

Table 3.2-6: VMT and Population Comparison

Scenario (Year)	Service Population[1]	Daily Trips[a]	Daily VMT[b]
Existing Conditions (2023)	3,597	11,944	98,120
Existing plus Project (2040)	3,743	13,403	104,046
Net Change (Percentage)	147 (4.1% increase)	1,459 (12.2% increase)	5,926 (6% increase)

Sources:

[a] ARUP. *NVCAP Traffic Results Technical Memo.* April 21, 2023.

[b] California Emissions Estimator Model (CalEEMod) Version 2022.1.1.7. *North Ventura Coordinated Area Plan Existing (2023) and Proposed (2040) Custom Reports*. April 2023.

Notes:

[1] Service population includes residents and employees. Consistent with the assumptions in the 2030 Comprehensive Plan, this analysis assumes 2.41 persons per household. Pursuant to the California Department of Finance, this analysis assumes 2.5 employees per 1,000 square feet for retail uses, and 4 employees per 1,000 square feet for office uses.

As shown in Table 3.2-6, build out of the NVCAP would increase VMT and daily trips by six and 12.2 percent, respectively, and increase the service population by 4.1 percent. Since the increase in population would be exceeded by the increase in VMT and daily trips, the NVCAP would have a significant criteria air pollutant emissions impact.

Impact AIR-1: Build out of the NVCAP would increase VMT and daily trips by six and 12.2 percent, respectively, and increase the service population by 4.1 percent. Since the increase in population would be exceeded by the increase in VMT

and daily trips, the NVCAP would have a significant criteria air pollutant emissions impact.

Mitigation Measures:

The 2030 Comprehensive Plan Update FEIR based its analysis of criteria air pollutants on the population to daily trips and VMT ratio, as well as an inventory of community-wide criteria air pollutant emissions generated as a result of the Comprehensive Plan. While the FEIR found that build out of the Comprehensive Plan as a whole would increase population at a greater rate than daily trips or VMT, the FEIR concluded that the Comprehensive Plan would result in a significant and unavoidable increase of O_3, PM_{10}, and $PM_{2.5}$. Mitigation measures AIR-2a, AIR-2b, AIR-2c, AIR-2d, and TRANS-1a and Trans 1b (refer to Section 3.2.2.2) were prescribed by the FEIR to address impacts associated with the generation of O_3, PM_{10}, and $PM_{2.5}$.

Future development under the NVCAP would be subject to these mitigation measures; however, the 2030 Comprehensive Plan Update FEIR concluded that impacts even with implementation of these measures would be significant and unavoidable. The identification of this program-level impact does not preclude the finding of less-than-significant impacts for subsequent projects that comply with BAAQMD screening criteria or meet BAAQMD's project-level thresholds of significance. Further, as demonstrated in Table 3.2-5, the NVCAP and all future development would be compliant with the applicable control measures of the 2017 CAP. However, due to the programmatic nature of the NVCAP, no additional mitigation measures are available. Accordingly, it is concluded that build out of the NVCAP would conflict with the 2017 Clean Air Plan due to a net increase of O_3, PM_{10}, and $PM_{2.5}$. **[New Significant Impact (Significant and Unavoidable Impact)]**

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

As stated in the BAAQMD CEQA Air Quality Guidelines, air pollution by its nature is largely a cumulative impact. No single project is sufficient in size to, by itself, result in non-attainment of ambient air quality standards. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions.

As described in Section 3.2.1.2, the Bay Area is considered a non-attainment area for ground-level O_3 and $PM_{2.5}$ under both the Federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment for PM_{10} under the California Clean Air Act, but not the federal act. As part of an effort to attain and maintain ambient air quality standards, BAAQMD has established thresholds of significance for these air pollutants and their precursors. Pursuant to the plan-level thresholds of significance for criteria air pollutant emissions and their precursors shown in Table 3.2-3, plans that are 1) inconsistent with the control measures provided in the 2017 CAP, or 2) would increase VMT or daily trips at a rate that would exceed the rate of population increase, are considered to have a significant and unavoidable criteria air pollutant emissions impact.

As documented under checklist question a), the NVCAP would be consistent with the 2017 CAP. However, as shown in Table 3.2-6, the increase in VMT and daily trips would exceed the increase in population as a result of the NVCAP. Accordingly, it is concluded that build out of the NVCAP would result in a cumulatively considerable net increase of O_3, PM_{10}, and $PM_{2.5}$. As discussed under checklist question a), future development under the NVCAP would be subject to the above mitigation measures identified in the 2030 Comprehensive Plan Update FEIR. Even with the mitigation, the impact would be significant and unavoidable. **(Same Impact as Approved Project [Significant and Unavoidable Impact])**

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

Community Health Risk

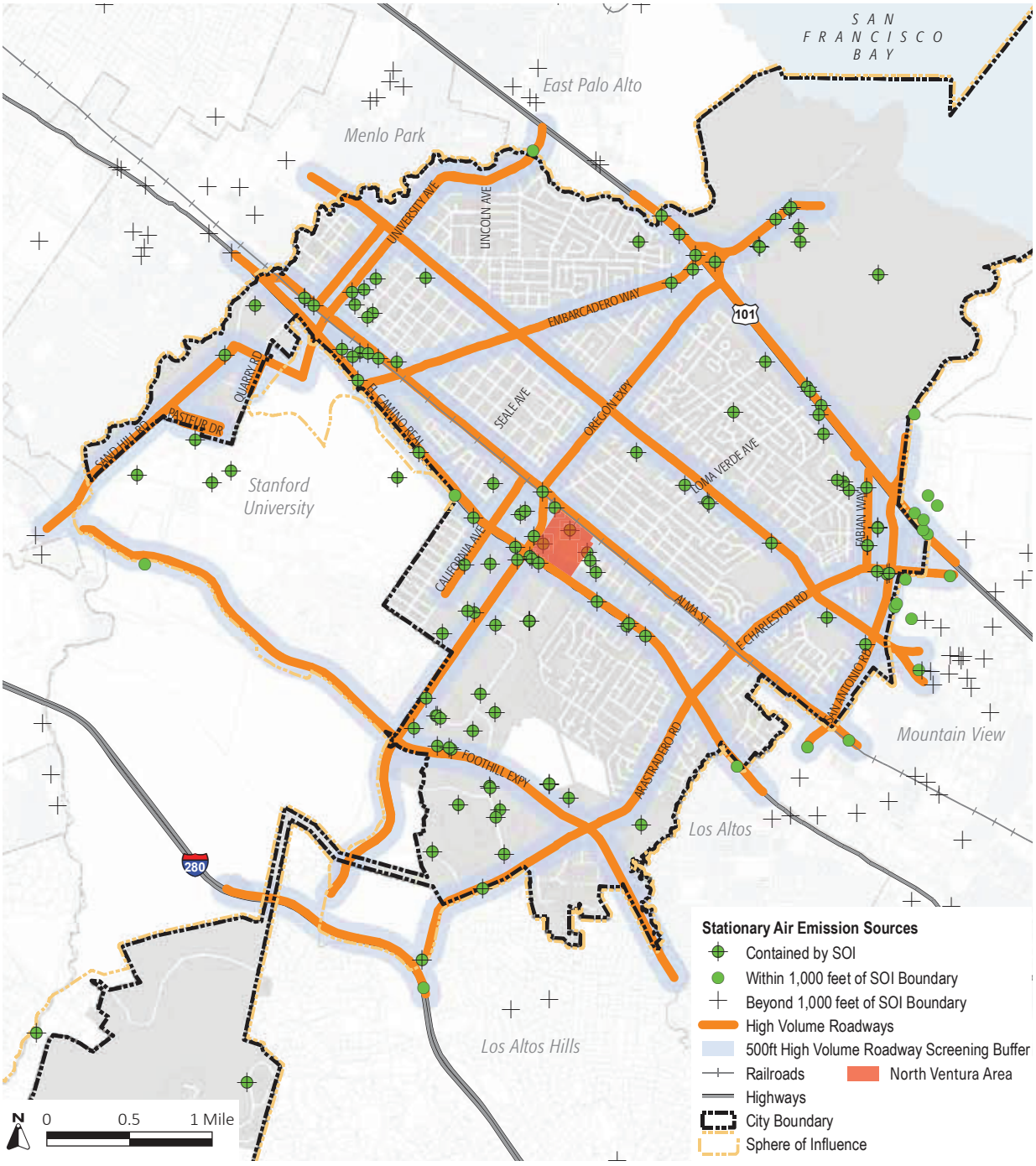
Per BAAQMD guidance, only sensitive receptors within 1,000 feet of TAC sources are at risk of health risk impacts associated with new development. The 2030 Comprehensive Plan Update FEIR identified existing and planned sources of TACs and $PM_{2.5}$, including special overlay zones of at least 500 feet on each side of all freeways and high-volume roadways, and identified policies, programs, and mitigation measures to minimize potentially adverse impacts. As shown on Figure 3.2-1, the entire NVCAP area is located within 1,000 feet of multiple TAC and $PM_{2.5}$ sources, and the majority of the NVCAP within 500 feet of a high-volume roadway.

The NVCAP would introduce new sensitive receptors to the NVCAP area that would be exposed to TACs and $PM_{2.5}$ sources; pursuant to *California Building Industry Association v. Bay Area Air Quality Management District, 62 Cal. 4th 369 (BIA v. BAAQMD)*, impacts of the environment on the project's future inhabitants are not considered CEQA impacts. The potential for existing air quality conditions to affect future sensitive receptors is discussed below in Section 3.2.3, Non-CEQA Effects. The potential for construction and operation of future development under the NVCAP to expose existing sensitive receptors to substantial pollutant concentrations is discussed below.

Construction Health Risks

Construction equipment and associated heavy-duty truck traffic generates DPM, which is a known TAC. The primary community risk impact issues associated with construction emissions are cancer risk and exposure to $PM_{2.5}$. DPM poses both a potential health and nuisance impact to nearby receptors.

TACs generated during construction of future development under the NVCAP could combine with the TAC sources shown in Figure 3.2-1 and expose existing sensitive receptors to substantial pollutant concentrations. Comprehensive Plan Policy N-5.3 requires future development to reduce emissions of particulates from manufacturing, dry cleaning, construction activity, grading, wood burning, landscape maintenance (including leaf blowers), and other sources. Policy N-5.4 requires all potential sources of TACs to be adequately buffered, or mechanically or otherwise mitigated to avoid impacts that violate relevant human health standards.



TAC AND $PM_{2.5}$ AIR EMISSION SOURCES | FIGURE 3.2-1

Additionally, all future development would be required to adhere to the regulations identified in Section 3.2.1.1 and 2030 Comprehensive Plan Update FEIR mitigation measures AIR-3a and AIR-3c, which require new residential and non-residential development to prepare health risk assessments (HRAs) in accordance with the State Office of Environmental Health Hazard Assessment and BAAQMD guidance. If the HRA shows that the incremental cancer risk exceeds 10 in one million, $PM_{2.5}$ concentrations exceed 0.3 $\mu g/m^3$, or the appropriate non-cancer hazard index exceeds 1.0, applicants would be required to identify mitigation measures that demonstrably reduce potential cancer and non-cancer risks below BAAQMD project-level thresholds (refer to Table 3.2 4).

Operational Health Risks

Pursuant to BAAQMD guidance, roadways with less than 10,000 average daily trips (ADT) are considered a low-impact source of TACs.[23] Factoring in the net difference in trips generated by existing uses present within the NVCAP area, implementation of the NVCAP is projected to result in an increase of 1,459 ADT (refer to Table 3.2-6). Based on the total number of trips and projected number of trips that would be added to major roadway segments at AM and PM peak hours, the project would not cause any roadways not already in excess of 10,000 ADT to exceed 10,000 ADT. Trips generated by new residential and retail uses would be primarily light-duty (i.e., gasoline- or electric-powered) as opposed to other types of land uses (e.g., distribution centers, quarries, manufacturing facilities, etc.) that generate heavy-duty vehicle traffic (i.e., diesel-powered) that are the primary source of traffic-generated TAC impacts. Additionally, traffic is increasingly electric-powered (refer to Section 3.5 Energy and Section 3.6 Greenhouse Gas Emissions). All future development within the NVCAP would be required to prepare and implement TDM plans, which would further reduce vehicle traffic by at least 35 percent.

In addition to vehicle traffic, future development under the project may include testing and emergency operation of diesel generators. Installation and operation of diesel generators requires a permit from BAAQMD, which requires generators to be operated in accordance with BAAQMD rules and regulations that would ensure sensitive receptors are not significantly exposed to generator emissions.

Consistent with BAAQMD plan-level thresholds of significance for health risks, the NVCAP has identified overlay zones for sources of air pollutants and TACs, and goals, policies and objectives to minimize potentially adverse impacts associated with future development. Therefore, community health risk associated with TACs generated by construction and operation of future development under the NVCAP would not expose sensitive receptors to substantial pollutant concentrations. **[Same Impact as Approved Project (Less than Significant Impact with Mitigation Incorporated)]**

[23] Bay Area Air Quality Management District. *Recommended Methods for Screening and Modeling Local Risks and Hazards, Version 3.0*. May 2012.

Fugitive Dust

Construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM_{10} and $PM_{2.5}$. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. The BAAQMD CEQA Air Quality Guidelines consider these impacts to be less than significant if the following best management practices are implemented.

BAAQMD Best Management Practices:

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

Comprehensive Plan Policy N-5.5 and 2030 Comprehensive Plan Update FEIR mitigation measure MM AIR-2a requires future development to comply with BAAQMD construction emissions control measures, including those identified above. Accordingly, fugitive dust generated during construction of future development under the NVCAP would not expose sensitive receptors to substantial pollutant concentrations. **(Same Impact as Approved Project [Less than Significant Impact])**

Health Risks from Criteria Air Pollutants

In a 2018 decision (*Sierra Club v. County of Fresno*), the state Supreme Court determined CEQA requires that when a project's criteria air pollutant emissions would exceed applicable thresholds and contribute a cumulatively considerable contribution to a significant cumulative regional criteria pollutant impact, the potential for the project's emissions to affect human health in the air basin must be disclosed. State and federal ambient air quality standards are health-based standards, and exceedances of those standards result in continued unhealthy levels of air pollutants. As stated in the 2017 BAAQMD CEQA Air Quality Guidelines, air pollution by its nature is largely a cumulative impact. No single project is sufficient in size, by itself, to result in non-attainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project has a less than significant impact for criteria pollutants, it is assumed to have no adverse health effect.

The San Francisco Bay Area Air Basin is considered non-attainment for O_3, PM_{10}, and $PM_{2.5}$. As discussed in the 2030 Comprehensive Plan Update FEIR, since attainment status is predicated on the health-based ambient air quality standards, plans and projects that that would substantially contribute to the Air Basin's non-attainment designations would cumulatively contribute to health impacts within the Air Basin. Known health effects related to O_3 include worsening of bronchitis, asthma, and emphysema and a decrease in lung function. PM exposure can also lead to a variety of health effects in people, including premature death due to heart or lung disease, nonfatal heart attacks, irregular heartbeat, decreased lung function, and increased respiratory symptoms. Pursuant to the discussion under checklist question a), the NVCAP would result in an unmitigable net increase of O_3, PM_{10}, and $PM_{2.5}$. Accordingly, build out of the NVCAP would expose sensitive receptors to substantial criteria air pollutant concentrations. **[Same Impact as Approved Project (Significant and Unavoidable Impact)]**

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

Construction activities associated with build out of the NVCAP would generate localized emissions of diesel exhaust during construction equipment operation and truck activity. These emissions may be noticeable from time to time by adjacent receptors; however, the odors would be localized and temporary and are not likely to affect people off-site. Odors associated with the application of paints and coatings may also be noticeable on occasion by adjacent receptors. Painting and coating of the project would occur during daytime hours only, would be localized, and would be generally confined to the NVCAP area. These odors would also be temporary.

Odors are generally considered an annoyance rather than a health hazard. Land uses that have the potential to be sources of odors that generate complaints include, but are not limited to, wastewater treatment plants, landfills, composting operations, and food manufacturing facilities. Implementation of the NVCAP would only result in the construction of new residential and retail

uses, which do not generate objectionable odors or any other type of emissions that could adversely affect a substantial number of people. Additionally, Comprehensive Plan Policy N-5.4 requires all potential sources of odor to be adequately buffered, or mechanically or otherwise mitigated to avoid odor impacts. **[Same Impact as Approved Project (Less than Significant Impact)]**

3.2.2.4 *Cumulative Impacts*

Would the project result in a cumulatively considerable contribution to a significant cumulative air quality impact?

The geographic area for cumulative air quality impacts is the San Francisco Bay Area Air Basin. Past, present, and future development projects contribute to the region's adverse air quality impacts. No single project is sufficient in size, by itself, to result in non-attainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts.

Consistency with the 2017 Clean Air Plan

As discussed under checklist question a), build out of the NVCAP would conflict with the 2017 Clean Air Plan due to a cumulatively considerable net increase of O_3, PM_{10}, and $PM_{2.5}$.

Criteria Air Pollutants

In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. As discussed under checklist questions a), the increase in VMT and daily trips would exceed the increase in population as a result of the NVCAP and, therefore, the NVCAP would result in a cumulatively considerable net increase of O_3, PM_{10}, and $PM_{2.5}$.

Exposure of Sensitive Receptors

As discussed under checklist question c), the NVCAP would not introduce new sources of TACs or generate fugitive dust that would result in adverse health effects on sensitive receptors. Plans that are consistent with BAAQMD's plan-level thresholds of significance for health risks and comply with BAAQMD best management practices are considered to have a less than cumulatively considerable contribution to health risk impacts associated with new sources of TACs and fugitive dust. However, as documented under checklist question c), the NVCAP's net increase of O_3, PM_{10}, and $PM_{2.5}$ would result in a significant and unavoidable impact associated with exposure of sensitive receptors to criteria air pollutants for which the San Francisco Bay Area Air Basin is considered non-attainment. Accordingly, the NVCAP would have a cumulatively considerable contribution to cumulative air quality impacts on sensitive receptors.

Odors

As discussed under checklist question d), odors associated with construction would be both temporary and localized, and therefore are not likely to affect people off-site. Residential and retail uses do not generate objectionable odors or any other type of emissions that could adversely affect a substantial number of people or result in a significant number of odor complaints. Additionally, Comprehensive Plan Policy N-5.4 requires all potential sources of odor to be adequately buffered, or mechanically or otherwise mitigated to avoid odor impacts. For these reasons, the NVCAP would not result in a cumulative considerable contribution to odor impacts.

Consistent with the findings of the 2030 Comprehensive Plan Update FEIR, build out of the NVCAP would contribute to a significant cumulative impact with respect to air quality. **[Same Impact as Approved Project (Significant and Unavoidable Cumulative Impact)]**

3.2.3 Non-CEQA Effects

Per *California Building Industry Association v. Bay Area Air Quality Management District,* 62 Cal. 4th 369 *(BIA v. BAAQMD)*, effects of the environment on the project are not considered CEQA impacts. The following discussion is included for informational purposes only because the City of Palo Alto has policies (specifically, Comprehensive Plan policies N-5.4, N-5.5, and N-5.6) that address existing air quality conditions affecting a proposed project.

As noted under checklist question c), the NVCAP would introduce new sensitive receptors to the NVCAP area that could be exposed to substantial pollutant concentrations generated by the existing TAC and $PM_{2.5}$ sources shown on Figure 3.2-1. Mitigation measure AIR-3C of the 2030 Comprehensive Plan Update FEIR requires residential and other sensitive land use (e.g., hospitals, nursing homes, day care centers) projects to prepare HRAs and reduce potential cancer and non-cancer risks for future sensitive receptors below BAAQMD project-level thresholds (refer to Table 3.2-4). Consistent with the findings of the 2030 Comprehensive Plan Update FEIR, implementation of Measure AIR-3c would ensure that future sensitive receptors are not exposed to substantial pollutant concentrations resulting in cancer and non-cancer risks in excess of BAAQMD thresholds.

3.3 Biological Resources

3.3.1 Environmental Setting

3.3.1.1 *Regulatory Framework*

Federal and State

Endangered Species Act

Individual plant and animal species listed as rare, threatened, or endangered under state and federal Endangered Species Acts are considered special-status species. Federal and state endangered species legislation has provided the United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW) with a mechanism for conserving and protecting plant and animal species of limited distribution and/or low or declining populations. Permits may be required from both the USFWS and CDFW if activities associated with a proposed project would result in the take of a species listed as threatened or endangered. To "take" a listed species, as defined by the State of California, is "to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill" these species. Take is more broadly defined by the federal Endangered Species Act to include harm of a listed species.

In addition to species listed under state and federal Endangered Species Acts, Sections 15380(b) and (c) of the CEQA Guidelines provide that all potential rare or sensitive species, or habitats capable of supporting rare species, must be considered as part of the environmental review process. These may include plant species listed by the California Native Plant Society and CDFW-listed Species of Special Concern.

Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA) prohibits killing, capture, possession, or trade of migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. Hunting and poaching are also prohibited. This includes direct and indirect acts, except for harassment and habitat modification, which are not included unless they result in direct loss of birds, nests, or eggs. The CDFW also protects migratory and nesting birds under California Fish and Game Code Sections 3503, 3503.5, and 3800. The CDFW defines taking as causing abandonment and/or loss of reproductive efforts through disturbance.

Sensitive Habitat Regulations

Wetland and riparian habitats are considered sensitive habitats under CEQA. They are also afforded protection under applicable federal, state, and local regulations, and are generally subject to regulation by the United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), CDFW, and/or the USFWS under provisions of the federal Clean Water Act (e.g., Sections 303, 304, 404) and State of California Porter-Cologne Water Quality Control Act.

Fish and Game Code Section 1602

Streambeds and banks, as well as associated riparian habitat, are regulated by the CDFW per Section 1602 of the Fish and Game Code. Work within the bed or banks of a stream or the adjacent riparian habitat requires a Streambed Alteration Agreement from the CDFW.

Regional and Local

2030 Comprehensive Plan

The following policies in the City's Comprehensive Plan have been adopted for the purpose of reducing or avoiding impacts related to biological resources and are applicable to the project.

Policy	Description
N-1.1	Preserve, protect and enhance public and private open space and ecosystems of Palo Alto from the foothills to the baylands. Respect the role that natural and landscaped areas within the urbanized part of the city play in a resilient ecological continuum, as illustrated on Map N-1.
N-1.2	Maintain a network of parks and urban forest from the urban center to the foothills and Baylands that provide ecological benefits and access to nature for all residents.
N-1.4	Protect special-status species and plant communities, including those listed by State and federal agencies and recognized organizations from the impacts of development and incompatible activities.
N-1.7	Carefully manage access and recreational use of environmentally sensitive areas, including the baylands, foothills and riparian corridors, in order to protect habitats and wildlife from the impacts of humans and domesticated animals.
N-1.13	Evaluate and mitigate the construction impacts associated with park and recreational facility creation and expansion.
N-2.1	Recognize the importance of the urban forest as a vital part of the city's natural and green infrastructure network that contributes to public health, resiliency, habitat values, appreciation of natural systems and an attractive visual character which must be protected and enhanced.
N-2.2	Use the UFMP, as periodically amended, to guide City decisions related to all elements of Palo Alto's urban forest, from its understory habitat to canopy cover.
N-2.3	Enhance the ecological resilience of the urban forest by increasing and diversifying native species in the public right-of-way, protecting the health of soils and understory vegetation, encouraging property owners to do the same and discouraging the planting of invasive species.
N-2.4	Protect soils in both urban and natural areas as the foundation of a healthy urban forest. Recognize that healthy soils are necessary to filter air and water, sustain plants and animals and support buildings and infrastructure.
N-2.5	Enhance tree health and the appearance of streets and other public spaces through regular maintenance as well as tree and landscape planting and care of the existing canopy.
N-2.6	Improve the overall distribution of citywide canopy cover, so that neighborhoods in all areas of Palo Alto enjoy the benefits of a healthy urban canopy.
N-2.8	Require new commercial, multi-unit and single-family housing projects to provide street trees and related irrigation systems.

Policy	Description
N-2.9	Minimize removal of, and damage to, trees due to construction-related activities such as trenching, excavation, soil compacting and release of toxins.
N-2.10	Preserve and protect Regulated Trees, such as native oaks and other significant trees, on public and private property, including landscape trees approved as part of a development review process and consider strategies for expanding tree protection in Palo Alto.
N-2.11	Coordinate City review by the Urban Forester, Planning, Utilities, and Public Works Departments, of projects that might impact the urban forest.
N-3.1	All creeks are valuable resources for natural habitats, connectivity, community design, and flood control, and need different conservation and enhancement strategies. Recognize the different characteristics along creeks in Palo Alto, including natural creek segments in the city's open space and rural areas, primarily west of Foothill Expressway; creek segments in developed areas that retain some natural characteristics; and creek segments that have been channelized. Pursue opportunities to enhance riparian setbacks along urban and rural creeks as properties are improved or redeveloped.
N-3.2	Prevent the further channelization and degradation of Palo Alto's creeks.
N-3.3	Protect the city's creeks from the impacts of future buildings, structures, impervious surfaces and ornamental landscaping and preserve their function as habitat connectivity corridors by establishing a range of setback requirements that account for existing creek conditions, land use characteristics, property ownership and flood control potential.
N-3.4	Recognize that riparian corridors are valued environmental resources whose integrity provides vital habitat for fish, birds, plants and other wildlife, and carefully monitor and preserve these corridors.
N-3.5	Preserve the ecological value of creek corridors by preserving native plants and replacing invasive, non-native plants with native plants.
N-3.6	Discourage bank instability, erosion, downstream sedimentation, and flooding by minimizing site disturbance and nearby native vegetation removal on or near creeks and by reviewing grading and drainage plans for development near creeks and elsewhere in their watersheds.
N-3.8	Work with the SCWVD, San Francisquito Creek Joint Powers Authority (JPA) and other relevant regional and non-governmental agencies to enhance riparian corridors, provide compatible low-impact recreation and ensure adequate flood control.

City of Palo Alto Municipal Code

Chapter 8.04, Public Trees, Shrubs, Hedges, and Plants

Chapter 8.04 gives the City control of all street trees, shrubs and plants in any street, park or public place within City limits, and the power to maintain them. It prohibits others from planting, removing, or damaging these resources without a permit. It identifies when these resources constitute a public nuisance (such as a diseased or dead tree) and the remedy.

Chapter 8.10, Tree and Landscape Preservation and Management (Tree Ordinance)

Chapter 8.10 protects specified trees in the city and establishes a standard for removal, maintenance, and planting of trees in the city, with the goal of preserving the city's trees. Chapter

8.10 provides rules for the protection of trees, designation of heritage trees, and for when trees can be removed. Three categories within the status of regulated trees include:

- **Protected Trees.** Includes all coast live oak (*Quercus agrifolia*) and valley oak trees 11.5 inches or greater in diameter, coast redwood trees 18 inches or greater in diameter at standard height, and heritage trees designated by the City Council according to any of the following provisions: it is an outstanding specimen of a desirable species; it is one of the largest or oldest trees in Palo Alto; or it possesses distinctive form, size, age, location, and/or historical significance.
- **Public Trees.** Includes City-owned street trees (all trees growing within the street right-of-way, outside of private property).
- **Designated Trees.** Designated or amenity trees are established by the City when a project is subject to discretionary design review process by the Architecture Review Board. Municipal Code Title 18, Chapter 18.76.020(d) (11) includes as part of the findings of review, "whether natural features are appropriately preserved and integrated with the project." An amenity tree or grouping of trees may be "designated" if it has a particular significance because of its screening function or as a unique natural or other feature that contributes to the existing site, neighborhood, or community area. Designated trees may be established by the City if a project is subject to a discretionary environmental or design review process, such as Architectural Review. Outstanding tree specimens contributing to the existing site, neighborhood or community, and that have a rating of "High" Suitability for Preservation would constitute a typical designated tree.

Title 22 Parks, Chapter 22.04

Chapter 22.04 provides for the protection of flora and fauna in city parks and open space by prohibiting the removal or injury to plants, trees, or wildlife in the parks without written consent of the director unless authorized by park regulations.

Tree Preservation Guidelines

For all development projects within the City of Palo Alto, discretionary or ministerial, a Tree Disclosure Statement (TDS) is part of the submittal checklist to establish and verify trees that exist on the site, trees that overhang the site originating on an adjacent property, and trees that are growing in a City easement, parkway, or publicly owned land. The TDS stipulates that a Tree Survey is required (for multiple trees) when a Tree Preservation Report is required (for development within the dripline of a Regulated Tree) and specifies who may prepare these documents.

City of Palo Alto Urban Forest Plans and Policies

The Urban Forest Master Plan (UFMP) establishes long-term management goals and strategies to foster a sustainable urban forest in Palo Alto. The UFMP addresses topics such as the state of Palo Alto's tree canopy, best management practices, interdepartmental coordination, and tree-related City regulations. The Urban Forest Master Plan advises tree trimming and removal practices within the City limits to include inspection for nests and restricting removal as appropriate. It also indicates

how to select appropriate, site-specific, tree species to ensure successful growth and that unwanted invasive species are not planted. The UFMP advises virtually all aspects of land development and use, sustainability and human health programs, and vegetative environmental services benefits.

3.3.1.2 *Existing Conditions*

The NVCAP includes 60-acres roughly bounded by Oregon Expressway/Page Mill Road to the west, El Camino Real to the south, Lambert Avenue to the east, and the Caltrain rail corridor to the north. The NVCAP site and surrounding area is fully developed with residential, non-residential, and open space uses. The 2030 Comprehensive Plan Update FEIR maps the NVCAP site and surrounding area as "urban forest", which consists of urban habitat and trees and landscaping that provide habitat for common, urban-adapted wildlife.

Special-Status Species

Based on a survey of the California Natural Diversity Database (CNDDB), which maps the known locations of species identified as rare, threatened, endangered, or of special concern by state and federal agencies, the 2030 Comprehensive Plan FEIR determined that there is no special-status species habitat located within areas mapped as urban forest.[24]

The NVCAP area is bisected by a concrete-lined, channelized portion of Matadero Creek that flows south to north between Park Boulevard and Ash Street. This portion of Matadero Creek does not contain riparian habitat or sensitive natural communities.[25]

Trees

Mature trees (both native and non-native) are valuable to the human environment for the benefits they provide for resisting global climate change (i.e., carbon dioxide absorption), because they provide nesting and foraging habitat for raptors and other migratory birds, and because they are a visual enhancement. There are more than 300 different species of trees on Palo Alto's streets. The following five species make up almost 35 percent of the total trees planted: southern magnolia, London plane, American sweetgum, Modesto ash, and camphor.[26]

3.3.2 Impact Discussion

For the purpose of determining the significance of the project's impact on biological resources, would the project:

[24] U.S. Fish and Wildlife Service. Critical Habitat for Threatened and Endangered Species. Accessed March 27, 2023. https://fws.maps.arcgis.com/home/webmap/viewer.html?webmap=9d8de5e265ad4fe09893cf75b8dbfb77

[25] U.S. Fish and Wildlife Service. National Wetlands Inventory. Wetlands Mapper. Accessed March 27, 2023. https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/

[26] City of Palo Alto. Comprehensive Plan Update Environmental Impact Report. Draft EIR. February 5, 2016. Page 4.3-17.

1) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS)?
2) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS?
3) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
4) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?
5) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
6) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

3.3.2.1 *2030 Comprehensive Plan Update FEIR – Biological Resources Conclusions*

The 2030 Comprehensive Plan Update FEIR concluded that build out under the Comprehensive Plan would result in less than significant impacts to biological resources.

3.3.2.2 *Project Impacts*

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

The NVCAP area is urbanized and developed with existing multi-family and single-family residential, office, and commercial services (including automotive) buildings. As discussed in Section 3.3.1.2 Existing Conditions, the NVCAP area does not support habitats suitable for candidate, sensitive, or special status species as identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS.

Migratory birds, like nesting raptors, are protected under the Migratory Bird Treaty Act and CDFW Code Sections 3503, 3503.5, and 3800. The CDFW defines “taking” as causing abandonment and/or loss of reproductive efforts through disturbance. Future construction activities under the NVCAP could result in the loss of eggs or nests. Any loss of fertile eggs, nesting raptors, or any activities resulting in nest abandonment would constitute a significant impact. Consistent with Comprehensive Plan Policy N-1.4, the following mitigation measure would reduce impacts to raptors and migratory birds during construction.

Impact BIO-1: Construction activities associated with build out of the NVCAP could result in the loss of fertile eggs, nesting raptors or other migratory birds, or nest abandonment.

Mitigation Measures:

MM BIO-1.1 **Construction During Migratory Bird and Raptor Nesting Season.** To the extent feasible, construction activities shall be scheduled to avoid the nesting season. If construction activities are scheduled to take place outside the nesting season, all impacts to nesting birds protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code shall be avoided. The nesting season for most birds in Santa Clara County extends from February 1 through August 31.

If initial site disturbance activities, including tree, shrub, or vegetation removal, are to occur during the bird breeding season (February 1 through August 31), a qualified biologist shall conduct a pre-construction survey for nesting migratory birds and raptors. The survey for nesting migratory birds shall cover the project site itself and the immediate vicinity of the site, with the survey for nesting raptors encompassing the site and surrounding lands within 250 feet, where accessible. The survey shall occur within seven days prior to the onset of ground disturbance.

If active nests are detected, appropriate construction-free buffers shall be established. The buffer sizes shall be determined by the project biologist based on species, topography, and type of activity occurring in the vicinity of the nest. Typical buffers are 25 to 50 feet for passerines[27] and up to 250 feet for raptors. The project buffer shall be monitored periodically by the project biologist to ensure compliance. After the nesting is completed, as determined by the biologist, the buffer shall no longer be required.

Following the conclusion of nesting activity and removal of the construction buffers, a report shall be submitted to the City summarizing the results of the survey including identifying any buffer zones, and outlining measures implemented to prevent impacts to nesting birds.

With the implementation of mitigation measure MM-BIO-1.1, future development under the NVCAP would not result in impacts to migratory nesting birds and raptors by ensuring no construction work takes place in or near active nests. **[Same Impact as Approved Project (Less than Significant Impact with Mitigation)]**

[27] Refers to smaller perching birds.

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS?

As documented in Section 3.3.1.2, the nearest body of water is a concrete-lined, channelized portion of Matadero Creek where there are no mapped riparian habitats or sensitive natural communities. There are also no sensitive natural communities in any other location within the plan area. The NVCAP would facilitate the conversion of a portion of Matadero Creek between Park Boulevard and Lambert Avenue (which is within the NVCAP area) into a fully naturalized channel.[28] Renaturalization of the creek would have the benefit of creating a riparian habitat ecosystem. In support of this long-term plan, the NVCAP proposes to establish a 100-foot riparian corridor buffer, as shown on Figure 2.4-1. Alterations to the creek are not proposed as part of the NVCAP and would be evaluated pursuant to CEQA once a project-level design is available. As a result, no future development would occur within 100 feet of any existing or future riparian habitat and, therefore, would not adversely affect any riparian habitat or other sensitive natural community. **[Same Impact as Approved Project (Less than Significant Impact)]**

c) Would the project have a substantial adverse effect on state or federally protected wetlands through direct removal, filling, hydrological interruption, or other means?

The NVCAP area does not contain state or federally protected wetland areas. Therefore, the project would not impact state or federally protected wetlands through future construction activities. **[Same Impact as Approved Project (Less than Significant Impact)]**

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

Wildlife corridors are areas of land that connect large areas of habitat where animals live and move. These corridors help animals move through natural areas. Within the City, these areas are largely associated with riparian corridors. Wildlife nursery sites are areas where wildlife produces and raises its young. This may include nesting, denning, or spawning activities. Wildlife nursery sites in Palo Alto include the Baylands, natural creeks such as San Francisquito Creek, riparian zones, and open space in the foothills such as Arastradero Preserve and Foothills Park.

The NVCAP would occur within an urbanized area of the City where no natural habitat exists on-site that would support habitat for wildlife species. As discussed under checklist question a), there is the potential for migratory birds to nest in the NVCAP area. Future development under the NVCAP

[28] City of Palo Alto. *Matadero Creek Renaturalization Conceptual Alternative Analysis*. September 2020.

would be required to implement mitigation measure MM BIO-1, which would ensure no construction takes place in or near active nests.

Matadero Creek, in its current condition, does not support wildlife nursery sites. As discussed under checklist question b), the City of Palo Alto is evaluating converting a portion of Matadero Creek into a fully naturalized channel. The NVCAP would facilitate this through the establishment of a 100-foot riparian corridor buffer. A fully naturalized Matadero Creek would result in a net benefit for wildlife movement. Alterations to the creek are not proposed as part of the NVCAP and would be evaluated pursuant to CEQA once a project-level design is available. Therefore, implementation of the project would not interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. **[Same Impact as Approved Project (Less than Significant Impact)]**

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

Future development allowed under the NVCAP could result in the removal of existing trees on private or public properties. The City's Tree Preservation and Management Ordinance requires compliance with the Tree Technical Manual, which outlines the requirements for removal and replacement of protected trees consistent with the tree canopy requirements. A written Tree Removal Permit would be required prior to removal of any street tree(s) and would further ensure that the requirements of the Ordinance are met. Compliance with the City's regulations would ensure that impacts to trees remain less than significant. **[Same Impact as Approved Project (Less than Significant Impact)]**

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

The NVCAP is not located within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan (including the Stanford HCP). Thus, there would be no impact. **[Less Impact than Approved Project (No Impact)]**

3.3.2.3 *Cumulative Impacts*

Would the project result in a cumulatively considerable contribution to a significant cumulative biological resources impact?

The geographic area for cumulative biological resources impacts includes the NVCAP area and adjacent parcels, where construction and operation of future development under the NVCAP could contribute to on- and off-site impacts to biological resources.

Candidate, Sensitive, or Special Status Species

As discussed under checklist question a), the surrounding area is highly urbanized and does not contain habitat suitable for special-status species. Therefore, the project would not contribute to a cumulatively significant impact on special-status species. Future cumulative development would be required to comply with existing regulations (including the MBTA and Fish and Game Code) and would be subject to the mitigation measures identified in checklist question a), which are designed to avoid and/or minimize impacts to nesting migratory birds and raptors. As such, the project would not contribute to a cumulatively significant impact to nesting migratory birds and raptors.

Riparian Habitats, Sensitive Natural Communities, and Wetlands

The NVCAP area does not currently support riparian habitat or sensitive natural communities. The City of Palo Alto is evaluating converting a portion of Matadero Creek into a fully naturalized channel, which would establish riparian habitat in the NVCAP. Future cumulative development in the NVCAP area would be required to implement a 100-foot riparian corridor buffer. As a result, future development would not contribute to a cumulatively significant impact to riparian habitats or sensitive natural communities.

The NVCAP area does not contain state or federally protected wetland areas and would not contribute to a cumulatively significant impact to wetlands.

Movement, Migration, or Use of Native Wildlife Nursery Sites

The project would not substantially interfere with wildlife movement or migration. Future cumulative development in the NVCAP area would be required to implement a 100-foot riparian corridor buffer. Further, Comprehensive Plan policies N-3.3 and N-3.4 would ensure that future cumulative development (including the project) does not damage habitat for wildlife species and maintain setbacks from Palo Alto's creek. With adherence to these policies, potential cumulative impacts on wildlife movement corridors would be less than significant.

Policies or Ordinances Protecting Biological Resources

Future development under the NVCAP would comply with policies and ordinances protecting biological resources, specifically those outlined in the City's Tree Preservation and Management Ordinance. Future cumulative development would also be required to comply with the City's requirements to protect trees. For these reasons, the cumulative projects would not conflict with the City's policies and regulations for tree protection.

Habitat Conservation Plans

Future cumulative development (including the project) is not located within an approved local, state, or national habitat conservation plan area. Thus, there would be no cumulative conflict with a Habitat Plan.

With the implementation of MM BIO-1.1 and adherence to existing regulations and policies (including the Comprehensive Plan), the project would not result in a cumulatively considerable contribution to a significant biological resources impact. **[Same Impact as Approved Project (Less than Significant Cumulative Impact with Mitigation)]**

3.4 Cultural Resources

The information in this section is based in part on a Historic Resource Evaluation (HRE) prepared by Page & Turnbull, Inc. in February 2019. This report is included in Appendix C of this SEIR.

3.4.1 Environmental Setting

3.4.1.1 *Regulatory Framework*

Federal and State

National Historic Preservation Act

Federal protection is legislated by the National Historic Preservation Act of 1966 (NHPA) and the Archaeological Resource Protection Act of 1979. These laws maintain processes for determination of the effects on historical properties eligible for listing in the National Register of Historic Places (NRHP). Section 106 of the NHPA and related regulations (36 Code of Federal Regulations [CFR] Part 800) constitute the primary federal regulatory framework guiding cultural resources investigations and require consideration of effects on properties that are listed or eligible for listing in the NRHP. Impacts to properties listed in the NRHP must be evaluated under CEQA.

The NRHP is the nation's master inventory of historic resources that are considered significant at the national, state, or local level. The minimum criteria for determining NRHP eligibility include:

- The property is at least 50 years old (properties under 50 years of age that are of exceptional importance or are contributors to a district can also be included in the NRHP);
- It retains integrity of location, design, setting, materials, workmanship, feeling, and associations; and
- It possesses at least one of the following characteristics:
- Association with events that have made a significant contribution to the broad patterns of history;
- Association with the lives of persons significant in the past;
- Distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant, distinguishable entity whose components may lack individual distinction; or
- Has yielded, or may yield, information important to prehistory or history.

California Register of Historical Resources

The California Register of Historical Resources (CRHR) is administered by the State Office of Historic Preservation and encourages protection of resources of architectural, historical, archeological, and cultural significance. The CRHR identifies historic resources for state and local planning purposes

and affords protections under CEQA. Under Public Resources Code Section 5024.1(c), a resource may be eligible for listing in the CRHR if it meets any of the NRHP criteria.[29]

Historical resources eligible for listing in the CRHR must meet the significance criteria described previously and retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. A resource that has lost its historic character or appearance may still have sufficient integrity for the CRHR if it maintains the potential to yield significant scientific or historical information or specific data.

The concept of integrity is essential to identifying the important physical characteristics of historical resources and, therefore, in evaluating adverse changes to them. Integrity is defined as "the authenticity of a historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance." The processes of determining integrity are similar for both the CRHR and NRHP and use the same seven variables or aspects to define integrity that are used to evaluate a resource's eligibility for listing. These seven characteristics include 1) location, 2) design, 3) setting, 4) materials, 5) workmanship, 6) feeling, and 7) association.

Senate Bill 18 (2005)

The intent of SB 18 is to aid in the protection of traditional tribal cultural places through local land use planning by requiring city governments to consult with California Native American tribes on projects which include adoption or amendment of general plans (defined in Government Code Section 65300 et seq.) and specific plans (defined in Government Code Section 65450 et seq.). SB 18 requires local governments to consult with tribes prior to making certain planning decisions and to provide notice to tribes at certain key points in the planning process.

California Native American Historical, Cultural, and Sacred Sites Act

The California Native American Historical, Cultural, and Sacred Sites Act applies to both state and private lands. The act requires that upon discovery of human remains, construction or excavation activity must cease and the county coroner be notified.

Public Resources Code Sections 5097 and 5097.98

Section 15064.5 of the CEQA Guidelines specifies procedures to be used in the event of an unexpected discovery of Native American human remains on non-federal land. These procedures are outlined in Public Resources Code Sections 5097 and 5097.98. These codes protect such remains from disturbance, vandalism, and inadvertent destruction, establish procedures to be implemented if Native American skeletal remains are discovered during construction of a project, and establish the Native American Heritage Commission (NAHC) as the authority to resolve disputes regarding disposition of such remains.

[29] California Office of Historic Preservation. "CEQA Guidelines Section 15064.5(a)(3) and California Office of Historic Preservation Technical Assistance Series #6." Accessed March 27, 2023. http://www.ohp.parks.ca.gov/pages/1069/files/technical%20assistance%20bulletin%206%202011%20update.pdf.

Pursuant to Public Resources Code Section 5097.98, in the event of human remains discovery, no further disturbance is allowed until the county coroner has made the necessary findings regarding the origin and disposition of the remains. If the remains are of a Native American, the county coroner must notify the NAHC. The NAHC then notifies those persons most likely to be related to the Native American remains. The code section also stipulates the procedures that the descendants may follow for treating or disposing of the remains and associated grave goods.

Local

2030 Comprehensive Plan

The following policies in the City's Comprehensive Plan have been adopted for the purpose of reducing or avoiding impacts related to cultural resources and are applicable to the project.

Policy	Description
L-7.1	Encourage public and private upkeep and preservation of resources that have historic merit, including residences listed in the City's Historic Resource Inventory, the California Register of Historical Resources, or the National Register of Historic Places.
L-7.2	If a proposed project would substantially affect the exterior of a potential historic resource that has not been evaluated for inclusion into the City's Historic Resources Inventory, City staff shall consider whether it is eligible for inclusion in State or federal registers prior to the issuance of a demolition or alterations permit. Minor exterior improvements that do not affect the architectural integrity of potentially historic buildings shall be exempt from consideration. Examples of minor improvements may include repair or replacement of features in kind, or other changes that do not alter character-defining features of the building.
L-7.4	Relocation may be considered as a preservation strategy when consistent with State and national standards regarding the relocation of historic resources.
L-7.7	Streamline, to the maximum extent feasible, any future processes for design review of historic structures to eliminate unnecessary delay and uncertainty for the applicant and to encourage historic preservation.
L-7.8	Promote adaptive reuse of old buildings.
L-7.9	Allow compatible nonconforming uses for the life of historic buildings.
L-7.11	For proposed exterior alterations or additions to designated Historic Landmarks, require design review findings that the proposed changes are in compliance with the Secretary of the Interior Standards for Rehabilitation.
L-7.12	Maintain the historic integrity of building exteriors. Consider parking exceptions for historic buildings to encourage rehabilitation.
L-7.13	Encourage and assist owners of historically significant buildings in finding ways to adapt and rehabilitate these buildings, including participation in state and federal tax relief programs.
L-7.14	Continue to use a TDR Ordinance to allow the transfer of development rights from designated buildings of historic significance in the Commercial Downtown (CD) zone to non-historic receiver sites in the CD zone. Consider revising the TDR Ordinance so that transferred development rights may be used only for residential development on the receiver sites.

Policy	Description
L-7.15	Protect Palo Alto's archaeological resources, including natural land formations, sacred sites, the historical landscape, historic habitats and remains of settlements here before the founding of Palo Alto in the 19th century.
L-7.16	Continue to consult with tribes as required by California Government Code Section 65352.3. In doing so, use appropriate procedures to accommodate tribal concerns when a tribe has a religious prohibition against revealing precise information about the location or previous practice at a particular sacred site.
L-7.17	Assess the need for archaeological surveys and mitigation plans on a project-by-project basis, consistent with the California Environmental Quality Act and the National Historic Preservation Act.
L-7.18	Require project proponents to meet State codes and regulations regarding the identification and protection of archaeological and paleontological deposits, and unique geologic features.

City of Palo Alto Municipal Code

Historic Resources Board (Chapter 2.27)

Chapter 2.27 of the PAMC establishes a Historic Resources Board (HRB), charged with advising property owners of historic residences who apply for alterations to their properties to understand and incorporate the Secretary of Interior's Standards for Rehabilitation as well as recommends conditions of project approval for those projects subject to discretionary review. Additionally, the HRB is in place to inform the Architectural Review Board of the significance of properties which are under review, as well as to provide recommendations to the Architectural Review Board regarding proposed alterations to historic structures. Another important duty of the board is to advise the City Council on the designation of buildings and structures to the City's inventory of historic structures and sites. The City Council has the authority to delegate additional functions to the HRB from time to time.

Historic Preservation Ordinance (Chapter 16.49)

The City's Historic Preservation Ordinance serves to protect historic resources by providing for the creation and maintenance of an historic resources inventory, as well as establishing regulations pertaining to the alteration, maintenance, and destruction of designated resources listed on the inventory. As described above, the HRB makes recommendations to the City Council on buildings and districts to be included on the inventory. The ordinance also contains criteria to be used for designation of a building or district on the historic resources inventory. The criteria are as follows:

- The structure or site is identified with the lives of historic people or with important events in the city, state, or nation;
- The structure or site is particularly representative of an architectural style or way of life important to the city, state, or nation;
- The structure or site is an example of a type of building which was once common, but is now rare;

- The structure or site is connected with a business or use which was once common, but is now rare;
- The architect or building was important;
- The structure or site contains elements demonstrating outstanding attention to architectural design, detail, materials, or craftsmanship.

In addition to the criteria for designation, the definitions of historic categories and districts, as defined in the ordinance, shall be used for designation of properties to the inventory. The definitions are as follows:

- **Category 1**: An "Exceptional Building" of pre-eminent national or State importance. These buildings are meritorious works of the best architects, outstanding examples of a specific architectural style, or illustrate stylistic development of architecture in the United States. These buildings have had either no exterior modifications or such minor ones that the overall appearance of the building is in its original character.
- **Category 2**: A "Major Building" of regional importance. These buildings are meritorious works of the best architects, outstanding examples of an architectural style, or illustrate stylistic development of architecture in the State or region. A major building may have some exterior modifications, but the original character is retained.
- **Category 3 or 4**: A "Contributing Building" which is a good local example of an architectural style and relates to the character of a neighborhood grouping in scale, materials, proportion, or other factors. A contributing building may have had extensive or permanent changes made to the original design, such as inappropriate additions, extensive removal of architectural details, or wooden facades resurfaced in asbestos or stucco.

3.4.1.2 *Existing Conditions*

Historic Resources

The NVCAP area is approximately 60 acres, roughly bounded by Oregon Expressway / Page Mill Road, El Camino Real, Lambert Avenue, and the Caltrain rail corridor in the Ventura neighborhood. There are no existing structures in the NVCAP that are listed on the NRHP, CRHR, or Palo Alto's Historic Inventory.[30] There is one property, located at 340 Portage Avenue[31], that is eligible for the CRHR.

A HRE was completed in 2019 and determined the former cannery property at 340 Portage Avenue is eligible for listing on the CRHR under Criterion 1 (Events) for its association with the history of the canning industry in Santa Clara County. The following discussion summarizes the findings of the HRE.

[30] City of Palo Alto. Comprehensive Plan Update Environmental Impact Report. Draft EIR. February 5, 2016.
[31] For the purposes of this analysis, 340 Portage Avenue includes 200, 210, 220, 230, 336, 360, 370, and 380 Portage Avenue, 3200 Park Boulevard, and 3201-3225 Ash Street.

Historic Context

Development at the 340 Portage Avenue site began in 1918 with the construction of the Bayside Canning Company by Thomas Foon Chew. One year later, 19 houses were constructed for the cannery workers and a large warehouse was added. By 1924, the cannery consisted of a large cooking and preparing facility with a two-story staging section and a warehouse at the now Park Boulevard and Portage Avenue intersection. To the south of the facility, there was a loading platform and small syrup room. Four small outbuildings, including a restroom and office, were located to the southeast of these buildings. A scale was situated along Portage Avenue, and an in-ground oil tank was located alongside the railroad spur. A separate one-story dwelling and small outbuilding were located to the north of the cannery, facing Third Street. Over the next decade, the cannery continued to expand under operation of the Sutter Packing Company with the addition of additional warehouses at 310 Portage Avenue, 300 Portage Avenue, and 380 Portage Avenue.[32] By 1941, the Sutter Packing Company's cannery occupied the entire block from Third Street on the north to First Street (now Ash Street) on the south and from the banks of Matadero Creek on the east to the Southern Pacific Railroad spur tracks on the west. The cannery continued to grow in response to World War II and by 1945, the main cannery building contained approximately 24 spaces, including the cannery at the center, between four general warehouses, one large packing warehouse, a box and nailing shop, a peeling shed, a staging area, an area for sterilizing food cans, and a small syrup room.

After years of expansion, Sutter Packing Company went into decline and closed its doors in 1949. A portion of the larger cannery complex on Lambert Avenue was initially leased to Coca-Cola, but there is no evidence that Coca-Cola occupied the subject property. By the 1960s, the former cannery had been subdivided into several smaller spaces, which were leased to a variety of tenants. In 1964, the Southern Pacific Railroad removed its spur tracks from the site. The same year, a portion of the building was occupied by Maximart, a large commercial store that sold home goods and appliances. By 1965, the three long buildings along Matadero Creek had been removed and the area to the southeast of 340 Portage Avenue had been converted into a parking lot. The surrounding area shows the effects of rapid residential growth in Palo Alto during the post war period and is densely packed with single family houses. By 1978, Maximart had moved out, and the site was under the ownership of WSP Properties. One third of the buildings were vacant, and the company proposed to redevelop the property for mixed use development with 175,000 square feet of office space and 117 apartment units. The project did not proceed and no apartment units were built. In 1990, Fry's Electronics began occupation of the 340 Portage Avenue building until closing in 2019.

Building Description

The 340 Portage Avenue is composed of roughly ten buildings that were constructed at various times between 1918 and 1949 and are attached, in some form, to one another. Some of these

[32] The cannery continued to be owned by Thomas Chew.

buildings are almost entirely encased between other structures and have very limited exterior exposure; sometimes only a single wall is visible. The buildings range in size but generally have a regular, rectilinear plan and concrete foundations. The main section of the building features a pair of monitor roofs[33] which are capped with composition shingles; the remainder of the building features a variety of roof shapes, including flat, gabled, shed, and arched roofs. The building is primarily clad in concrete or corrugated metal with some sections on the rear clad in wood siding. There are minimal openings, including some metal doors and fixed metal windows on the first story, wood clerestory ribbon windows[34] and wire glass skylights.

A one-story, wood frame building (a former office building for the cannery) is located to the southeast of 340 Portage Avenue at 3201-3225 Ash Street. Its primary, northwest façade features a front-gabled roof, wraparound porch with a shed roof, and a symmetrical arrangement of windows and doors. The building has double-hung wood sash windows and wood lap siding. It is surrounded by a wood fence on the northeast side, which separates the building from the southeast parking lot. The house is landscaped with a small lawn that is interspersed with low hedges and deciduous trees.

[33] A monitor in architecture is a raised structure running along the ridge of a double-pitched roof, with its own roof running parallel with the main roof.

[34] Clerestory windows are large windows placed above eye level to illuminate an interior space with natural light. They're typically placed in a row right below the roofline, but they can also sit above roof lines or overhangs to maximize the amount of light.

NRHP/CRHR Evaluation

The buildings at 340 Portage Avenue were evaluated for listing against the significance criteria for the NRHP and the CRHR.

CRHR Criterion 1 (Events)

340 Portage Avenue and the associated former office building at 3201-3225 Ash Street appear to be individually significant under Criterion 1 for association with historical events important to the history of Palo Alto.[35] The buildings are a rare surviving example of Palo Alto's and Santa Clara County's agricultural past. Agricultural industries, including fruit and vegetable canning, were once the dominant industries in Santa Clara County. The oldest portions of the cannery building, itself, were constructed in 1918 for the Bayside Canning Company, which was owned by Chinese immigrant and prominent canning mogul, Thomas Foon Chew. Under Chew, the Bayside Canning Company rose to become the third largest fruit and vegetable cannery in the world in the 1920s, behind only Libby and Del Monte.

CRHR Criterion 2 (Persons)

As previously noted, the building at 340 Portage Avenue was originally built by Thomas Foon Chew in 1918 as the second canning plant for his Bayside Canning Company and continued under his ownership until his death in 1931. He is regarded as the primary driving force behind the Bayside Canning Company's growth into the third largest fruit and vegetable cannery in the world by 1920 and became known as "The Asparagus King" for his innovative method for canning green asparagus. Despite this, the building at 340 Portage Avenue is not the site of his pioneering asparagus canning innovations nor was it the first canning plant constructed by Chew. In addition, the building was extensively expanded after Chew's death, primarily when it was owned and operated by the Sutter Packing Company, and no longer bears a resemblance to its appearance during his lifetime. The building, therefore, does not retain enough integrity to be significant for its association with Thomas Foon Chew. Therefore, the buildings (including the building at 3201-3225 Ash Street) are not eligible for listing on the CRHR under Criterion 2.

CRHR Criterion 3 (Architecture/Design)

340 Portage Avenue consists of what were originally several connected cannery facilities and associated warehouse buildings. It is primarily constructed of reinforced concrete with utilitarian wood post-and-beam construction and no ornamentation, consistent with their functional design. The former office building at 3201-3225 Ash Street is a plain wood-frame building built in a vernacular style. Neither of the buildings exhibit artistic value, nor are they distinctive examples of cannery building or industrial warehouse typologies. They also do not display innovative

[35] The period of significance under this criterion begins in 1918, when canning operations began at the site under the Bayside Canning Company, and ends in 1949, when the Sutter Packing Company's canning operations at the building ended.

engineering or design elements. Therefore, the buildings are not individually eligible for listing in the CRHR under Criterion 3.

CRHR Criterion 4 (Information Potential)

The "potential to yield information important to the prehistory or history of California" typically relates to archeological resources, rather than built resources. Therefore, the property was not evaluated under Criterion 4.

In order to qualify for listing in any local, state, or national historic register, a property or landscape must possess significance under at least one evaluative criterion as described above and retain integrity. Integrity is defined by the California Office of Historic Preservation as "the authenticity of an historical resource's physical identity by the survival of certain characteristics that existing during the resource's period of significance," or more simply defined as "the ability of a property to convey its significance." The HRE concluded that the property retains integrity.

Archaeological Resources

Several prehistoric sites with shell midden components, including human burials, have been found, particularly in the flatland areas of the City. There is still the potential that additional undiscovered archeological resources exist in the City. According to a records search conducted for the 200 Portage Avenue Townhome Project[36] five archaeological resources were identified within a one-half mile radius of 200 Portage Avenue.[37] The Sacred Lands File results were negative.[38]

3.4.2 Impact Discussion

For the purpose of determining the significance of the project's impact on cultural resources, would the project:

1) Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5?
2) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?
3) Disturb any human remains, including those interred outside of dedicated cemeteries?

3.4.2.1 *2030 Comprehensive Plan Update FEIR – Cultural Resources Conclusions*

The 2030 Comprehensive Plan Update FEIR concluded that impacts to historic resources pursuant to CEQA Guidelines Section 15064.5 would be reduced to less than significant because the Comprehensive Plan includes policies (Policy L-7.2) that would require the City review any proposed

[36] The 200 Portage Avenue site is located in the center of the NVCAP area.
[37] City of Palo Alto. *200 Portage Avenue Townhome Project Draft Environmental Impact Report*. SCH# 2021120444. September 2022.
[38] Ibid.

demolition or alteration of a potentially historic building. The 2030 Comprehensive Plan Update FEIR concluded that the potential remains that previously undiscovered archaeological deposits could be discovered from ground-disturbing activities associated with new development under the Comprehensive Plan. However, consistent with Comprehensive Plan Policy L-7.17, future development would assess the need for archaeological surveys and identify mitigation measures on a project-by-project basis. Further, Policy L-7.18 would require that projects identify and protect archaeological resources consistent with State codes and regulations. The 2030 Comprehensive Plan Update FEIR found that impacts to humans remains would be reduced to less than significant with adherence to federal and State regulations, such as the California Health and Safety Code Section 7050.5, Public Resources Code Section 5097.98, and the California Code of Regulations Section 15064.5(e).

3.4.2.2 *Project Impacts*

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5?

A project could have a significant impact on a historic resource if it would cause a substantial adverse change in the historic significance of that resource. A "substantial adverse change" is defined as the physical demolition, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be materially impaired.

As discussed in Section 3.4.1.2, the 340 Portage Avenue property is eligible for listing on the CRHR under Criterion 1 (Events) for its association with the history of the canning industry in Santa Clara County; it is therefore a historical resource under CEQA. As shown on Figure 2.3-1 in Section 2.0, the 340 Portage Avenue site would be designated for Medium Density residential uses under the NVCAP. Within this land use classification, the Medium Density Multiple-Family Residential District (NV-RS) would be allowed. This zoning district would allow up to 30 dwelling units per acre and building heights up to 36 feet in height (refer to Table 2.3-2). For the purposes of this SEIR, it is assumed that the 340 Portage Avenue property would remain, would be increased in height to three stories, and the interior of the building would be developed with 281 residential units and 7,400 square feet of retail.[39,40] Although adaptive reuse would retain more of the historic integrity of the existing building by preserving it, it is unclear whether adaptive reuse of the building for housing could be completed in conformance with the Secretary of the Interior Standards for Treatment of Historic Properties and in accordance with the California Historic Building Code.[41]

[39] City of Palo Alto. *200 Portage Avenue Townhome Project Draft Environmental Impact Report*. SCH# 2021120444. September 2022. Page 6-4.

[40] The On September 12, 2023, the City of Palo Alto City Council approved the Alternative 3, Development Agreement, Project, adopting the 200 Portage Avenue Townhome Project EIR and making findings of overriding consideration for the Development Agreement Project. The Development Agreement included demolition of a portion of the cannery building at 340 Portage to accommodate 74-townhome units and an approximately 75-unit affordable housing development.

[41] City of Palo Alto. *200 Portage Avenue Townhome Project Draft Environmental Impact Report*. SCH# 2021120444. September 2022. Page 6-5.

Therefore, while it is assumed that the NVCAP would not require demolition of the 340 Portage Avenue property, impacts from adaptive reuse would still be considered significant. While the NVCAP does not propose the demolition or removal of any historic resources (including any structures at the 340 Portage Avenue property), implementation of the NVCAP would allow for new development and redevelopment over a period of approximately 20 years that could directly or indirectly affect historic resources, including those that have yet to be identified and evaluated.

Impact CUL-1: Future projects proposed under the North Ventura Coordinated Area Plan could result in the demolition of historic buildings, including yet identified historic resources as defined in CEQA Guidelines Section 15064.5.

Mitigation Measures:

Consistent with Comprehensive Plan Policy L-7.2, future development projects that would demolish a potential historic resource shall be required to implement the following mitigation measures.

MM CUL-1.1: Prior to project approval, future development projects that would demolish a potential historic resource shall be required to prepare a Historic Resource Evaluation (HRE) to evaluate whether the property is eligible for inclusion into the City's Historic Resources Inventory, CRHR, and NRHP. The HRE shall address the feasibility of avoiding adverse impacts through project redesign, rehabilitation, or reuse of the resource. Preservation in place is always the preferred measure for mitigating direct impacts to historic resources. If the resource is to be preserved on the property, specific measures to protect the integrity of the structure and its setting shall be identified.

MM CUL-1.2: If impacts to the historic resource cannot be avoided, all feasible measures are required to be implemented to reduce the magnitude of the impact. At a minimum, the City shall require "Documentation" and "Commemoration" efforts in accordance with the guidelines established for Historic American Building Survey (HABS) consistent with the Secretary of Interior's Standards for Architectural and Engineering Documentation. Additional measures could include relocation, incorporation of the resources into the project, and/or salvage. The documentation shall be completed by a qualified architectural historian or historian who meets the Secretary of the Interior's Professional Qualification Standards for History and/or Architectural History.

With adherence to mitigation measure MM CUL-1.1, future projects that require the demolition or substantial alteration of a potential historic resource would be required to prepare an HRE to address the feasibility of avoiding adverse impacts through project redesign, rehabilitation, or reuse of the resource. If impacts to the historic resource cannot be avoided, mitigation measure MM CUL-1.2 would ensure that all feasible measures are required to be implemented to reduce the magnitude of the impact. However, even with implementation of mitigation measure MM CUL-1.2, it is possible that future development under the NVCAP would result in the demolition of historic

resources pursuant to CEQA (including structures at the 340 Portage Avenue property). This would constitute a significant unavoidable impact. **[New Significant Unavoidable Impact (Significant Unavoidable Impact)]**

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?

As discussed in Section 3.4.1.2, several prehistoric sites with shell midden components, including human burials, have been found, particularly in the flatland areas of the City. In addition, a record search conducted for a development project in the NVCAP area identified five archaeological resources within one-half mile of 200 Portage Avenue. As a result, implementation of the project would have the potential for uncovering unrecorded archaeological resources.

Future redevelopment within the NVCAP would comply with the following Comprehensive Plan policies pertaining to archaeological resources.

- **Policy L-7.15:** Protect Palo Alto's archaeological resources, including natural land formations, sacred sites, the historical landscape, historic habitats and remains of settlements here before the founding of Palo Alto in the 19th century.
- **Policy L-7.16:** Continue to consult with tribes as required by California Government Code Section 65352.3. In doing so, use appropriate procedures to accommodate tribal concerns when a tribe has a religious prohibition against revealing precise information about the location or previous practice at a particular sacred site.
- **Policy L-7.17:** Assess the need for archaeological surveys and mitigation plans on a project-by-project basis, consistent with the California Environmental Quality Act and the National Historic Preservation Act.
- **Policy L-7.18:** Require project proponents to meet State codes and regulations regarding the identification and protection of archaeological and paleontological deposits, and unique geologic features.

Future NVCAP development, in conformance with existing Comprehensive Plan policies would not result in significant impacts to archaeological resources because Comprehensive Plan Policy L-7.15 requires protection of archaeological resources and Polices L-7.17 and L-7.18 require mitigation, identification, and protection of archaeological resources. **[Same Impact as Approved Project (Less than Significant Impact)]**

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

In the event that human remains are found, future development under the NVCAP shall comply with the procedures set forth by Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.94 of the State of California, this includes the following:

- If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be of Native American origin, the Coroner will notify the Native American Heritage Commission, which will determine and notify a most likely descendant (MLD). The MLD has 48 hours from being granted site access to make recommendations for the disposition of the remains. If the MLD does not make recommendations within 48 hours, the landowner shall reinter the remains in an area of the property secure from subsequent disturbance.

Consistent with the findings of the 2030 Comprehensive Plan Update FEIR, with adherence to existing regulations, the NVCAP would have a less than significant impact due to potential disturbance of human remains. **[Same Impact as Approved Project (Less than Significant Impact)]**

3.4.2.3 *Cumulative Impacts*

Would the project result in a cumulatively considerable contribution to a significant cumulative cultural resources impact?

Historic Resources

The geographic area for cumulative impacts to historic resources is Citywide.

The 2030 Comprehensive Plan Update FEIR concluded that build out of the Comprehensive Plan would result in less than significant cumulative impacts to historic resources, with the implementation of Comprehensive Plan policies. The Comprehensive Plan includes policies (Policies L-7.2, L-7.4, L-7.8, L-7.13, and L-7.14) that aim to reduce impacts to historic resources. Future projects proposed under the NVCAP could result in the demolition of historic buildings, including yet identified historic resources as defined in CEQA Guidelines Section 15064.5. The loss of historic resources from implementation of the NVCAP, including the 340 Portage Avenue property and not yet identified historic resources, would be cumulatively considerable for the City.

Archaeological Resources

The geographic area for cumulative impacts to archaeological resources includes the NVCAP sites and adjacent parcels, where construction and operation of future development under the NVCAP could contribute to on- and off-site impacts to archaeological resources.

Future cumulative development may require excavation and grading or other activities that may affect archaeological resources. Comprehensive Plan Policy L-7.15 requires protection of archaeological resources and Polices L-7.17 and L-7.18 require mitigation, identification, and

protection of archaeological resources. As a result, cumulative development (including the NVCAP) would not result in significant cumulative impacts to archaeological resources.

Human Remains

All cumulative projects (including the proposed project) are required to comply with existing regulations, including California Health and Safety Code Sections 7054 and 7050.5 and Public Resources Code Sections 5097.9 through 5097.99 to reduce impacts to human remains (if discovered) to a less than significant level.
For these reasons, the cumulative projects (including the NVCAP) would not result in significant cumulative impacts to human remains.

Implementation of the NVCAP could result in the demolition of historic buildings, including not yet identified historic resources. **[New Cumulative Significant Unavoidable Impact (Cumulative Significant Unavoidable Impact)]**

3.5 Energy

3.5.1 Environmental Setting

3.5.1.1 *Regulatory Framework*

Federal and State

Energy Star and Fuel Efficiency

At the federal level, energy standards set by the EPA apply to numerous consumer products and appliances (e.g., the EnergyStar™ program). The EPA also sets fuel efficiency standards for automobiles and other modes of transportation.

Renewables Portfolio Standard Program

In 2002, California established its Renewables Portfolio Standard Program, with the goal of increasing the percentage of renewable energy in the state's electricity mix to 20 percent of retail sales by 2010. Governor Schwarzenegger issued Executive Order (EO) S-3-05, requiring statewide emissions reductions to 80 percent below 1990 levels by 2050. In 2008, EO S-14-08 was signed into law, requiring retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. In October 2015, Governor Brown signed SB 350 to codify California's climate and clean energy goals. A key provision of SB 350 requires retail sellers and publicly owned utilities to procure 50 percent of their electricity from renewable sources by 2030. SB 100, passed in 2018, requires 100 percent of electricity in California to be provided by 100 percent renewable and carbon-free sources by 2045.

Executive Order B-55-18 To Achieve Carbon Neutrality

In September 2018, Governor Brown issued an executive order, EO-B-55-18 To Achieve Carbon Neutrality, setting a statewide goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." The executive order requires CARB to "ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal." EO-B-55-18 supplements EO S-3-05 by requiring not only emissions reductions, but also that, by no later than 2045, the remaining emissions be offset by equivalent net removals of CO_2 from the atmosphere through sequestration.

California Building Standards Code

The Energy Efficiency Standards for Residential and Nonresidential Buildings, as specified in Title 24, Part 6 of the California Code of Regulations (Title 24), was established in 1978 in response to a legislative mandate to reduce California's energy consumption. Title 24 is updated approximately

every three years.[42] Compliance with Title 24 is mandatory at the time new building permits are issued by city and county governments.[43]

California Green Building Standards Code

CALGreen establishes mandatory green building standards for buildings in California. CALGreen was developed to reduce GHG emissions from buildings, promote environmentally responsible and healthier places to live and work, reduce energy and water consumption, and respond to state environmental directives. CALGreen covers five categories: planning and design, energy efficiency, water efficiency and conservation, material and resource efficiency, and indoor environmental quality.

Advanced Clean Cars Program

CARB adopted the Advanced Clean Cars program in 2012 in coordination with the EPA and National Highway Traffic Safety Administration. The program combines the control of smog-causing pollutants and GHG emissions into a single coordinated set of requirements for vehicle model years 2015 through 2025. The program promotes development of environmentally superior passenger cars and other vehicles, as well as saving the consumer money through fuel savings.[44]

Local

2030 Comprehensive Plan

The following policies in the City's Comprehensive Plan have been adopted for the purpose of reducing or avoiding impacts related to energy and are applicable to the project.

Policy	Description
N-7.1	Meet customer electricity needs with least total cost resources after careful assessment of environmental cost and benefits.
N-7.2	Advance the development of a "smart" energy grid, a diverse energy resource portfolio, and technologically advanced public utilities as a key part of a smart and connected city.
N-7.3	Prioritize the identification and implementation of cost-effective, reliable and feasible energy efficiency and demand reduction opportunities.
N-7.4	Maximize the conservation and efficient use of energy in new and existing residences and other buildings in Palo Alto.

[42] California Building Standards Commission. "California Building Standards Code." Accessed March 27, 2023. https://www.dgs.ca.gov/BSC/Codes#@ViewBag.JumpTo.
[43] California Energy Commission (CEC). "2019 Building Energy Efficiency Standards." Accessed March 27. 2023. https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2019-building-energy-efficiency.
[44] California Air Resources Board. "Advanced Clean Cars Program." Accessed March 27, 2023. https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program.

Policy	Description
N-7.5	Encourage energy efficient lighting that protects dark skies and promotes energy conservation by minimizing light and flare from development while ensuring public health and safety.
N-7.6	Support the maximum economic use of solar electric (photovoltaic) and solar thermal energy, both as renewable supply resources for the Electric Utility Portfolio and as alternative forms of local power generation.
N-7.7	Explore a variety of cost-effective ways to reduce natural gas usage in existing and new buildings in Palo Alto in order to reduce associated greenhouse gas emissions.

Palo Alto 2022 Sustainability and Climate Change Plan

The City of Palo Alto adopted it's the 2022 Sustainability and Climate Action Plan (S/CAP) in June 2023. The S/CAP is a comprehensive document laying out the City's strategy to achieve these ambitious carbon reduction goals, while improving our natural environment, adapting to climate impacts, and increasing livability for Palo Alto residents. While reducing emissions is a priority for the City, Palo Alto believes in a comprehensive view of sustainability. The S/CAP establishes the goals of reducing carbon emissions 80 percent below 1990 levels by 2030 (the "80 x 30" goal) and achieving carbon neutrality by 2030.

Palo Alto Green Building Ordinance and Energy Reach Code

The City of Palo Alto requires compliance with the local Green Building Ordinance, which is encompassed in Chapter 16.14 of the Palo Alto Municipal Code. The Green Building Ordinance includes the mandatory measures of CALGreen (Title 24, Part 11), including the City's landscape water efficiency standards adopted under the Model Water Efficient Landscape Ordinance (WELO); and also requires projects in the City to adhere to even more stringent sustainability measures by expanding the types of projects that are covered under CALGreen. The City also requires the use of the Voluntary (Tier 1 and Tier 2) requirements for certain residential and non-residential new construction, additions, and alterations:

- Residential building additions or alterations exceeding 1,000 square feet must meet the CALGreen Tier 1 requirements.
- New residential construction must meet the CALGreen Tier 2 requirements.
- Nonresidential alternations of 1,000 square feet or greater (including tenant improvements or renovations) that include replacement or alternation of at least two of the following: HVAC system, building envelope, hot water system, or lighting system, must comply with the CALGreen Tier 1 requirements.
- Nonresidential additions of 1,000 square feet or more must comply with the CALGreen Tier 2 requirements.
- New nonresidential construction must meet the CALGreen Tier 2 requirements.
- New residential and nonresidential construction must be fully electric.

- New one-family, two-family and townhouse dwelling units must provide one Level 2 electrical vehicle supply equipment (EVSE) or one EV ready space (Low Power Level 2 EV Charging Receptacle) per unit.
- New multi-family dwellings must provide one Level 2 EVSE or one Level 2 EV Ready space for each residential unit in the structure (Low Power Level 2 EV Charging Receptacle is acceptable for 60 percent of the total EV parking spaces).
- New non-residential (with 10 to 20 parking spaces) must provide at least 20 percent EV Capable or EVSE-Ready space, and at least 20 percent Level 2 EVSE installed of the total parking spaces.
- New non-residential (20 parking spaces or more) must provide at least 15 percent EV Capable or EVSE-Ready space, and at least 15 percent EVSE installed for of the total parking spaces.

Construction Demolition Debris Ordinance

The City of Palo has adopted a construction and demolition debris ordinance that is consistent with the new requirements under CALGreen for mandatory construction recycling (Palo Alto Municipal Code Chapter 5.24, Construction and Demolition Debris Diversion Facilities). Pursuant to the City's Municipal Code, all projects in the City are required to recycle or salvage for reuse a minimum of 80 percent of the non-hazardous construction and demolition debris and calculate the amount of materials diverted by weight. In addition, 100 percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing, and inert solids such as concrete and asphalt, are required to be reused or recycled.

For residential projects covered under the City's local Green Building Ordinance, the City requires 100 percent of asphalt and concrete materials to be diverted and 80 percent (by weight) of remaining materials. To assist developers in the City in meeting the City's construction and demolition debris requirements, the City of Palo Alto Development Services department has deployed the Green Halo System, an online software program that ensures contractors are in compliance with the City's construction demolition debris diversion ordinance.

3.5.1.2 *Existing Conditions*

Total energy usage in California was approximately 6,956.6 trillion British thermal units (Btu) in the year 2020, the most recent year for which this data was available.[45] Out of the 50 states, California is ranked second in total energy consumption and 49th in energy consumption per capita. The breakdown by sector was approximately 21.8 percent (1,507.7 trillion Btu) for residential uses, 19.6 percent (1,358.3 trillion Btu) for commercial uses, 24.6 percent (1,701.2 trillion Btu) for industrial

[45] United States Energy Information Administration. "State Profile and Energy Estimates, 2020." Accessed March 13, 2023. https://www.eia.gov/state/?sid=CA#tabs-2.

uses, and 34 percent (2,355.5 trillion Btu) for transportation.[46] This energy is primarily supplied in the form of natural gas, petroleum, nuclear electric power, and hydroelectric power.

Electricity

In 2020, California produced approximately 70 percent of the electricity it consumed and the rest was imported from outside the state, including from Mexico.[47] California's non-carbon dioxide emitting electric generation (from nuclear, large hydroelectric, solar, wind, and other renewable sources) accounted for more than 46 percent of total in-state generation for 2020.[48] Electricity from coal-powered plants located out of state has continued to decrease since 2006 due to a state law limiting new long-term financial investments in power plants that meet California emissions standards.

California's total system electric generation in 2021 was approximately 197,165,106 megawatt-hours (MWh), which was down three percent from 2020's total generation of approximately 201,784,204 MWh.[49] In 2020 natural gas represented the largest portion of the state's electricity sources (at 54 percent). Solar and wind generation accounted for more than 65 percent of all renewable electricity generation.[50]

Electricity in Santa Clara County in 2021 was consumed primarily by the non-residential sector (74 percent), followed by the residential sector consuming 23 percent. In 2021, a total of approximately 16,904 gigawatt hours (GWh) of electricity was consumed in Santa Clara County.[51]

The City of Palo Alto Utilities (CPAU) owns and operates its own utility systems, including electric, fiber optic, natural gas, water, and wastewater services. In 2019, CPAU purchased 26.5 GWh of electricity entirely from carbon-neutral sources for use within its service area.[52]

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[46] United States Energy Information Administration. "State Profile and Energy Estimates, 2020." Accessed March 13, 2023. https://www.eia.gov/state/?sid=CA#tabs-2.

[47] U.S. Energy Information Administration. State Profile and Energy Estimates: California. March 13, 2023. https://www.eia.gov/state/?sid=CA#tabs-3

[48] Ibid.

[49] U.S. Energy Information Administration. *State Electricity Profiles; California Electricity Profile 2019.* November 2, 2020. And Ibid. *California Electricity Profile 2020.* March 13, 2023.

[50] U.S. Energy Information Administration. State Profile and Energy Estimates: California. March 13, 2023. https://www.eia.gov/state/?sid=CA#tabs-3

[51] California Energy Commission. Energy Consumption Data Management System. "Electricity Consumption by County." Accessed March 13, 2023. http://ecdms.energy.ca.gov/elecbycounty.aspx.

[52] City of Palo Alto. *Annual Report to the California Energy Commission*. Accessed March 13, 2023. https://www.cityofpaloalto.org/files/assets/public/agendas-minutes-reports/reports/city-manager-reports-cmrs/year-archive/2020-2/id-11562.pdf?t=58191.13.

Natural Gas

In 2022, California's natural gas supply came from a combination of in-state production and imported supplies from other western states and Canada.[53] In 2021, residential and commercial customers in California used 33 percent of the state's natural gas, power plants used 0.01 percent, and the industrial sector used 33 percent, with the remainder going towards vehicle fuel and electric power generation.[54] In 2021, Santa Clara County used less than one percent of the state's total consumption of natural gas.[55]

Fuel for Motor Vehicles

In 2022, California produced 122 million barrels of crude oil and in 2019, 19.2 billion gallons of gasoline were sold in California.[56][57] The average fuel economy for light-duty vehicles (autos, pickups, vans, and sport utility vehicles) in the United States has steadily increased from about 13.1 miles per gallon (mpg) in the mid-1970s to 25.4 mpg in 2021.[58] Federal fuel economy standards have changed substantially since the Energy Independence and Security Act was passed in 2007. That standard, which originally mandated a national fuel economy standard of 35 miles per gallon by the year 2020, was updated in April 2022 to require all cars and light duty trucks achieve an overall industry average fuel economy of 49 mpg by model year 2026.[59][60]

Energy Use of Existing Development

Energy used by the existing development within the NVCAP area is summarized below in Table 3.5-1.

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[53] California Gas and Electric Utilities. 2022 *California Gas Report.* Accessed March 13, 2023. https://www.socalgas.com/sites/default/files/Joint_Utility_Biennial_Comprehensive_California_Gas_Report_2022.pdf.

[54] United States Energy Information Administration. "Natural Gas Consumption by End Use. 2021." Accessed March 13, 2023. https://www.eia.gov/state/?sid=CA#tabs-2.

[55] California Energy Commission. "Natural Gas Consumption by County." Accessed March 13, 2023. http://ecdms.energy.ca.gov/gasbycounty.aspx.

[56] U.S. Energy Information Administration. "Petroleum & Other Liquids, California Field Production of Crude Oil." February 28, 2023. https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=pet&s=mcrfpca1&f=a

[57] California Department of Tax and Fee Administration. "Net Taxable Gasoline Gallons." Accessed March 27, 2023. https://www.cdtfa.ca.gov/dataportal/dataset.htm?url=VehicleTaxableFuelDist.

[58] United States Environmental Protection Agency. "The 2021 EPA Automotive Trends Report: Greenhouse Gas Emissions, Fuel Economy, and Technology since 1975." November 2021. https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P1010U68.pdf

[59] United States Department of Energy. *Energy Independence & Security Act of 2007.* Accessed March 13, 2023. http://www.afdc.energy.gov/laws/eisa.

[60] United States Department of Transportation. USDOT Announces New Vehicle Fuel Economy Standards for Model Year 2024-2026." Accessed March 13, 2023. https://www.nhtsa.gov/press-releases/usdot-announces-new-vehicle-fuel-economy-standards-model-year-2024-2026

Table 3.5-1: Estimated Annual Energy Use of Existing Development

Land Use (Quantity)[1]	Electricity Use (kWh)	Natural Gas Use (kBtu)	Gasoline (gal./yr.)[4]
Apartments Mid Rise (106 units)	361,614	933,232	48,624
Single Family Housing (36 units[2])	216,924	1,612,997	34,978
Automobile Sales (52,676 sq. ft.[3])	574,703	2,306,635	157,768
Electronics Superstore (3,900 sq. ft.)	33,325	22,224	16,203
General Light Industrial (8,379 sq. ft.)	91,416	366,909	6,616
General Office Building (627,565 sq. ft.)	13,284,693	14,904,851	652,678
Shopping Center (63,968 sq. ft.)	544,298	362,988	177,591
Medical/Dental Office Building (25,097 sq. ft.)	531,269	596,061	120,282
Mini Warehouse (4,407 sq. ft.)	44,149	23,156	1,057
Motel (3 units)	38,872	177,001	1,762
Recreational Community Center (31,765 sq. ft.)	346,561	1,390,961	148,607
High-Turnover Sit-down Restaurant (3,130 sq. ft.)	142,036	422,302	35,896
Warehousing (26,320 sq. ft.)	263,669	138,292	7,937
Total Energy Usage	**16,473,528**	**23,257,609**	**1,409,998**

Source: California Emissions Estimator Model (CalEEMod) Version 2022.1.1.7. *North Ventura Coordinated Area Plan Existing (2023) and Proposed (2040) Custom Reports*. April 2023.

Notes:

[1] Existing land use quantities based on data provided by the City and in the Traffic Technical Memo, attached to this SEIR as Appendix F.

[2] Single-family housing consists of 33 detached units and three attached units.

[3] Sq. ft. = square feet

[4] Gal./yr. = gallons per year. Gasoline use calculated based on estimated annual VMT of existing uses in CalEEMod divided by average U.S. fuel economy. Per the 2021 EPA Automotive Trends Report, the average U.S. Fuel Economy is 25.4 mpg for light-duty vehicles.

3.5.2 Impact Discussion

For the purpose of determining the significance of the project's impact on energy, would the project:

1) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?
2) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?
3) Result in a substantial increase in demand upon energy resources in relation to projected supplies?

3.5.2.1 *2030 Comprehensive Plan Update FEIR – Energy Conclusions*

Consistent with CEQA Guidelines Section 15126.2, the 2030 Comprehensive Plan Update FEIR provided programmatic environmental review for energy-related impacts associated with build out of the City's Comprehensive Plan. The FEIR found that build out of the Comprehensive Plan would cause significant irreversible environmental changes associated with the use of nonrenewable energy sources. The FEIR did not explicitly address whether build out would result in wasteful, inefficient, or unnecessary consumption of energy resources, or conflict with or obstruct any renewable energy or energy efficiency plans.

3.5.2.2 *Project Impacts*

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

Construction

Construction associated with future development under the NVCAP would result in the temporary usage and consumption of electricity to power electric construction equipment, mobile offices, or water delivered to construction sites; gasoline and diesel fuel used for transportation of workers and haul trucks to and from construction sites; and fuel used for operation of off-road equipment. Construction-related energy usage and consumption would be dispersed over the course of the build out period, and would vary based on the level of activity, length of the construction period, specific construction operations, types of equipment, and number of personnel. Since the timing and intensity of the construction activity required for future development projects under the NVCAP is not yet known, energy consumption during construction of future development cannot be quantified.

For any project, the overall construction schedule and process is designed to be efficient to avoid excess monetary costs. That is, equipment and fuel would not be used wastefully on the project site because of the added expense associated with renting the equipment, maintaining it, and fueling it. Further, the NVCAP area is in an urbanized area in proximity to roadways, construction supplies, and workers, making it more efficient than construction occurring in outlying, undeveloped areas.

Therefore, energy consumption by construction of future development would not be wasteful, inefficient, or unnecessary. **[Less Impact than Approved Project (Less than Significant Impact)]**

Operation

Build out of the NVCAP is anticipated to result in a net increase in residential uses and a net decrease in office and retail uses within the NVCAP area. Once constructed, gasoline would be consumed during vehicle trips by future residents, which is anticipated to be primarily light-duty vehicles. Electricity would be consumed by future development to power buildings. Consistent with the Palo Alto Green Building Ordinance and Energy Reach Code, natural gas infrastructure and appliances would be prohibited in future development and, therefore, the natural gas consumption assumed by CalEEMod for the additional 530 housing units and new non-residential development (6,418 square feet of medical/dental office, 70,100 square feet of research and development) was converted to electricity. The estimated annual consumption of electricity, natural gas, and gasoline assuming full build out of the NVCAP is shown in Table 3.5-2.

Table 3.5-2: Estimated Annual Energy Use of Proposed Development

Land Use (Quantity)[1]	Electricity Use (kWh/yr.)	Natural Gas Use (kBtu/yr.)	Gasoline (gal./yr.)[4]
Apartments Mid Rise (636 units)	3,537,260	933,232	151,230
Single Family Housing (36 units[2])	216,924	1,612,997	18,131
Automobile Sales (39,076 sq. ft.[3])	426,325	1,711,103	60,692
Electronics Superstore (3,900 sq. ft.)	33,325	22,224	8,399
General Office Building (315,734 sq. ft.)	6,683,657	7,498,774	228,974
Shopping Center (82,777 sq. ft.)	739,192	362,988	119,687
Medical/Dental Office Building (31,515 sq. ft.)	711,804	596,061	78,361
Mini Warehouse (4,407 sq. ft.)	44,149	23,156	548
Research and Development Center (70,100 sq. ft.)	1,971,874	--	53,428
Motel (3 units)	38,872	177,001	913
Recreational Community Center (21,916 sq. ft.)	239,107	959,682	53,205

Land Use (Quantity)[1]	Electricity Use (kWh/yr.)	Natural Gas Use (kBtu/yr.)	Gasoline (gal./yr.)[4]
NVCAP 2040 Energy Usage[5]	*14,642,489*	*13,897,218*	*773,570*
Existing Energy Usage[6]	*16,473,528*	*23,257,609*	*1,409,998*
Net NVCAP Energy Usage[7]	**-1,831,039**	**-9,360,391**	**-636,428**

Source: California Emissions Estimator Model (CalEEMod) Version 2022.1.1.7. *North Ventura Coordinated Area Plan Existing (2023) and Proposed (2040) Custom Reports*. April 2023.

Notes:

[1] The proposed land use quantities evaluated herein are consistent with projected development under the NVCAP and the build out scenario evaluated in the Traffic Technical Memo, which is attached to this SEIR as Appendix F.

[2] Single-family housing consists of 33 detached units and three attached units.

[3] Sq. ft. = square feet

[4] Gal./yr. = gallons per year. Gasoline use calculated based on estimated annual VMT of existing uses in CalEEMod divided by average U.S. fuel economy. Per the Energy Independence and Security Act, the mandated U.S. Fuel Economy would be 49 mpg for light-duty vehicles at the time of full build out of the NVCAP (2040).

[5] Reported energy usage assumes maximum build out of the NVCAP through the year 2040.

[6] Reported energy usage reflects the energy consumption of all existing development within the NVCAP area as of 2023. Refer to Table 3.5-1 for the calculation of energy consumption by existing development.

[7] Net NVCAP energy usage calculated by subtracting the energy consumed by existing development in the NVCAP area in 2023 from the projected energy consumption of all future development under full build out of the NVCAP in 2040.

As shown in Table 3.5-2, build out of the NVCAP would decrease consumption of electricity, natural gas, and gasoline, due to increases in building efficiency, prohibitions on natural gas infrastructure, and improvements in fuel economy, respectively. Therefore, project-related energy consumption is less than significant in comparison with state and county consumption of electricity, natural gas, and gasoline. Therefore, the project would not result in wasteful, inefficient, or unnecessary consumption or wasteful use of energy resources. **[Less Impact than Approved Project (Less than Significant Impact)]**

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

State and local renewable energy and energy efficiency plans that are applicable to the NVCAP are discussed in Section 3.5.1.1. The Palo Alto Municipal Code (Green Building Ordinance and Reach Code) requires new residential construction and new non-residential construction (>1,000 square feet) to meet CALGreen Tier 2 requirements. Residential building additions/alterations (>1,000 square feet) and new non-residential construction and alterations (<1,000 square feet) are required to comply with CALGreen Tier 1 requirements. Accordingly, future development under the NVCAP would be compliant with Title 24 and CALGreen. Palo Alto provides 100 percent carbon neutral natural gas and electricity, and therefore future development would be consistent with the Renewables Portfolio Standard Program and Executive Order B-55-18. Accordingly, the NVCAP

would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. **[Less Impact than Approved Project (Less than Significant Impact)]**

3.5.2.3 *Cumulative Impacts*

Would the project result in a cumulatively considerable contribution to a significant cumulative energy impact?

The geographic area for cumulative energy impacts is the State of California, since the extent of the project's impact on electricity, natural gas, and gasoline resources is limited to the extent where the State has jurisdiction to manage energy resources. The discussion of the NVCAP's individual impacts on energy resources provided under Section 3.5.2.2, checklist question a) reflects the project's cumulative impacts as well, since the NVCAP's consumption of electricity, natural gas, and gasoline would result in a net decrease in consumption at the state and county level. The discussion under checklist question b) also reflects cumulative impacts, since the NVCAP was evaluated for consistency with both state and local renewable energy and energy efficiency plans and found to have a less than significant impact. For these reasons, the NVCAP would not result in a cumulatively considerable contribution to a significant cumulative energy impact. **[Less Impact than Approved Project (Less than Significant Cumulative Impact)]**

3.6 Greenhouse Gas Emissions

3.6.1 Environmental Setting

3.6.1.1 *Background Information*

Gases that trap heat in the atmosphere, greenhouse gases (GHGs), regulate the earth's temperature. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate. In GHG emission inventories, the weight of each gas is multiplied by its global warming potential (GWP) and is measured in units of CO_2 equivalents (CO_2e). The most common GHGs are carbon dioxide (CO_2) and water vapor but there are also several others, most importantly methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). These are released into the earth's atmosphere through a variety of natural processes and human activities. Sources of GHGs are generally as follows:

- CO_2 and N_2O are byproducts of fossil fuel combustion.
- N_2O is associated with agricultural operations such as fertilization of crops.
- CH_4 is commonly created by off-gassing from agricultural practices (e.g., keeping livestock) and landfill operations.
- Chlorofluorocarbons (CFCs) were widely used as refrigerants, propellants, and cleaning solvents, but their production has been stopped by international treaty.
- HFCs are now used as a substitute for CFCs in refrigeration and cooling.
- PFCs and SF_6 emissions are commonly created by industries such as aluminum production and semiconductor manufacturing.

An expanding body of scientific research supports the theory that global climate change is currently causing changes in weather patterns, average sea level, ocean acidification, chemical reaction rates, and precipitation rates, and that it will increasingly do so in the future. The climate and several naturally occurring resources within California are adversely affected by the global warming trend. Increased precipitation and sea level rise will increase coastal flooding, saltwater intrusion, and degradation of wetlands. Mass migration and/or loss of plant and animal species could also occur. Potential effects of global climate change that could adversely affect human health include more extreme heat waves and heat-related stress; an increase in climate-sensitive diseases; more frequent and intense natural disasters such as flooding, hurricanes and drought; and increased levels of air pollution.

3.6.1.2 *Regulatory Framework*

State

<u>Assembly Bill 32 (2006) & Senate Bill 32 (2016)</u>

Under the California Global Warming Solutions Act of 2006, also known as AB 32, CARB established a statewide GHG emissions cap for 2020, adopted mandatory reporting rules for significant sources

of GHGs, and adopted a comprehensive plan, known as the Climate Change Scoping Plan, identifying how emission reductions would be achieved from significant GHG sources.

In 2016, SB 32 was signed into law, amending the California Global Warming Solution Act. SB 32, and accompanying Executive Order B-30-15, require CARB to ensure that statewide GHG emissions are reduced to 40 percent below the 1990 level by 2030. CARB updated its Climate Change Scoping Plan in December of 2017 to express the 2030 statewide target in terms of million metric tons of CO_2e ($MMTCO_2e$). Based on the emissions reductions directed by SB 32, the annual 2030 statewide target emissions level for California is 260 $MMTCO_2e$.

Senate Bill 375 (2008)

SB 375, known as the Sustainable Communities Strategy and Climate Protection Act, was signed into law in September 2008. SB 375 builds upon AB 32 by requiring CARB to develop regional GHG reduction targets for automobile and light truck sectors for 2020 and 2035. The per capita GHG emissions reduction targets for passenger vehicles in the San Francisco Bay Area include a seven percent reduction by 2020 and a 15 percent reduction by 2035.

Consistent with the requirements of SB 375, the Metropolitan Transportation Commission (MTC) partnered with the Association of Bay Area Governments (ABAG), BAAQMD, and the Bay Conservation and Development Commission to prepare the region's Sustainable Communities Strategy (SCS) as part of the Regional Transportation Plan process. The SCS is referred to as Plan Bay Area 2050.

Plan Bay Area 2050 is a long-range plan for the nine-county San Francisco Bay Area that provides strategies that increase the availability of affordable housing, support a more equitable and efficient economy, improve the transportation network, and enhance the region's environmental resilience. Plan Bay Area 2050 promotes the development of a variety of housing types and densities within identified priority development areas (PDAs). PDAs are areas generally near existing job centers or frequent transit that are locally identified for housing and job growth.[61]

Play Bay Area 2050 includes a goal to increase the number of households that live within 0.5 mile of frequent transit by 2050. Plan Bay Area promotes strategies that support active and shared modes, combined with a transit-supportive land use patterns, which together are forecasted to lower the share of Bay Area residents that drive to work alone from 50 percent in 2015 to 33 percent in 2050, resulting in a decrease in greenhouse gas emissions. Plan Bay Area 2050 also includes goals to expand TDM initiatives that support and augment employers' commute programs, providing a path to emissions reductions.

[61] Association of Bay Area Governments and Metropolitan Transportation Commission. *Plan Bay Area 2050*. October 21, 2021. Page 20.

Regional and Local

2017 Clean Air Plan

To protect the climate, the 2017 CAP (prepared by BAAQMD) includes control measures designed to reduce emissions of methane and other super-GHGs that are potent climate pollutants in the near-term, and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.

CEQA Air Quality Guidelines

On April 20, 2022, the BAAQMD Board of Directors adopted the Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans. The report includes BAAQMD's thresholds of significance for use in determining whether a proposed project or plan will have a significant impact on climate change and provides substantial evidence to support these thresholds. The April 2022 GHG threshold replaces the GHG thresholds set forth in the May 2017 BAAQMD CEQA Air Quality Guidelines. BAAQMD has analyzed what will be required of new land use development projects and plans to achieve California's long-term climate goal of carbon neutrality by 2045.

The threshold of significance for plans (e.g., General Plans, Climate Action Plans, and similar long-term community wide plans) is to meet the state's goals to reduce emissions to 40 percent below 1990 levels by 2030 and carbon neutrality by 2045 or be consistent with a local GHG reduction strategy that meets the criteria under CEQA Guidelines Section 15183.5(b).

The threshold of significance for land use development projects is to either A) incorporate project design elements and achieve a reduction in project-generated VMT below the regional average consistent with the current version of the California Climate Change Scoping Plan or B) be consistent with a local GHG reduction strategy that meets the criteria of CEQA Guidelines Section 15183.5 (b). Table 3.6-1 below summarizes the GHG thresholds for plans and land use projects.

Table 3.6-1: BAAQMD GHG Significance Thresholds

Plan-Level Thresholds
A. Meet the State's goals to reduce emissions to 40 percent below 1990 levels by 2030 and carbon neutrality by 2045; or
B. Be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).
Project-Level Thresholds
A. Projects must include, at a minimum, the following project design elements: 1. Buildings a. The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development). b. The project will not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b)of the State CEQA Guidelines. 2. Transportation a. Achieve a reduction in project-generated VMT below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts. b. Achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.
B. Be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

2030 Comprehensive Plan

The following policies in the City's Comprehensive Plan have been adopted for the purpose of reducing or avoiding impacts related to greenhouse gas emissions and are applicable to the project.

Policy	Description
T-1.1	Take a comprehensive approach to reducing single-occupant vehicle trips by involving those who live, work and shop in Palo Alto in developing strategies that make it easier and more convenient not to drive.
T-1.3	Reduce GHG and pollutant emissions associated with transportation by reducing VMT and per-mile emissions through increasing transit options, supporting biking and walking, and the use of zero-emission vehicle technologies to meet City and State goals for GHG reductions by 2030.
T-1.4	Ensure that electric vehicle charging infrastructure, including infrastructure for charging e-bikes, is available citywide.
T-1.16	Promote personal transportation vehicles an alternative to cars (e.g. bicycles, skateboards, roller blades) to get to work, school, shopping, recreational facilities and transit stops.
T-1.17	Require new office, commercial and multi-family residential developments to provide improvements that improve bicycle and pedestrian connectivity as called for in the 2012 Palo Alto Bicycle + Pedestrian Transportation Plan.

City of Palo Alto Municipal Code

The City's Green Building Ordinance and Energy Reach Ordinance exceed the mandatory efficiency standards set by the California Energy Code and to adopt the California Green Building Code Voluntary Tiers 1 and 2 as mandatory measures for new construction and addition-remodels over a certain size. The Palo Alto Green Building Ordinance requires applicants to incorporate sustainable design, construction, and operational requirements into most single-family residential, multi-family residential, and non-residential projects. The ordinance results in reduced energy and water operational costs and improved environmental quality for building owners and occupants and encourages material conservation and resource efficiency.

The City's Energy Reach Code requires full electrification for all new construction (including non-residential).

Construction Demolition Debris Ordinance

The City of Palo has adopted a construction and demolition debris ordinance that is consistent with the new requirements under CALGreen for mandatory construction recycling (Palo Alto Municipal Code Chapter 5.24, Construction and Demolition Debris Diversion Facilities). Pursuant to the City's Municipal Code, all projects in the City are required to recycle or salvage for reuse a minimum of 80 percent of the non-hazardous construction and demolition debris and calculate the amount of materials diverted by weight. In addition, 100 percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing, and inert solids such as concrete and asphalt, are required to be reused or recycled.

For residential projects covered under the City's local Green Building Ordinance, the City requires 100 percent of asphalt and concrete materials to be diverted and 80 percent (by weight) of remaining materials. To assist developers in the City in meeting the City's construction and demolition debris requirements, the City of Palo Alto Development Services department has deployed the Green Halo System, an online software program that ensures contractors are in compliance with the City's construction demolition debris diversion ordinance.

Palo Alto 2022 Sustainability and Climate Change Plan

The City of Palo Alto adopted its 2022 S/CAP in June 2023. The S/CAP is a comprehensive document laying out the City's strategy to achieve these ambitious carbon reduction goals, while improving our natural environment, adapting to climate impacts, and increasing livability for Palo Alto residents. While reducing emissions is a priority for the City, Palo Alto believes in a comprehensive view of sustainability. The S/CAP establishes the goals of reducing carbon emissions 80 percent below 1990 levels by 2030 (the "80 x 30" goal) and achieving carbon neutrality by 2030. The S/CAP meets the criteria under State CEQA Guidelines Section 15183.5(b).

3.6.1.3 *Existing Conditions*

Unlike emissions of criteria and toxic air pollutants, which have regional and local impacts, emissions of GHGs have a broader, global impact. Global warming is a process whereby GHGs accumulating in the upper atmosphere contribute to an increase in the temperature of the earth and changes in weather patterns.

In 2020, Palo Alto emitted an estimated 385,320 metric tons (MT) of carbon dioxide equivalent (CO_2e) from the residential, commercial, industrial, transportation, waste, water, and municipal sectors. In comparison to the 1990 base year emissions of 780,119 MT CO_2e, that is a 50.6 percent decrease in total community emissions, despite a population increase of 21.8 percent during that same period.[62] This equates to 5.7 MT CO_2e per Palo Alto resident in 2020 compared to 14 MT CO_2e per Palo Alto resident in 1990.

The NVCAP area is developed with a mix of multi-family and single-family residential, office, and retail. Most of the GHG emissions associated with the existing uses on-site result from the production of electricity and burning of natural gas to power the buildings for lighting, heating, and cooling, and the emissions from vehicles traveling to and from the sites.

3.6.2 Impact Discussion

For the purpose of determining the significance of the project's impact on greenhouse gas emissions, would the project:

1) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?
2) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?

3.6.2.1 *2030 Comprehensive Plan Update FEIR – GHG Conclusions*

The 2030 Comprehensive Plan Update FEIR concluded that build out under the Comprehensive Plan would result in a decrease in emissions compared to existing conditions and would achieve 2030 performance criteria that would ensure the City is on a trajectory to achieve GHG reduction targets of SB 32 for 2030. Additionally, implementation of the City's Comprehensive Plan and S/CAP would ensure that the City is consistent with CARB's Scoping Plan, ABAG/MTC's Plan Bay Area, and is working to achieve a 2030 emissions reduction target more aggressive than the State.

[62] City of Palo Alto. "Sustainability Goals and Progress." Accessed March 30, 2023. https://www.cityofpaloalto.org/City-Hall/Sustainability/Goals-and-Progress#:~:text=Carbon%20Neutrality%20Goal&text=For%20Palo%20Alto%2C%20this%20means,2030%20and%20offsetting%20remaining%20emissions.

3.6.2.2 *Project Impacts*

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

Construction

Construction GHG emissions estimates are not included as part of this analysis due to the speculative nature and lack of a BAAQMD or industry-standard model for calculating emissions on a program-level basis. In addition, neither the City nor BAAQMD have an adopted threshold of significance for construction related GHG emissions. BAAQMD encourages the incorporation of best management practices to reduce GHG emissions during construction where feasible and applicable, including using alternative fueled (e.g., biodiesel, electric) construction vehicles/equipment for at least 15 percent of the fleet, using local building materials of at least 10 percent, and recycling or reusing at least 65 percent of construction waste or demolition materials.

Future redevelopment under the NVCAP would comply with CALGreen and the City's construction and demolition waste diversion regulations to recycle or reuse at least 80 percent of the future projects' nonhazardous waste. For these reasons, future projects would result in less than significant construction GHG emissions.

Operation

It is estimated the NVCAP would be built out and fully occupied by 2040. Long-term operational GHG emissions from the build out of the NVCAP would result from area emissions (i.e., emissions from architectural coatings), energy consumption, mobile emissions from vehicles traveling to and from the NVCAP area, and emissions from solid waste generation and water usage. BAAQMD's recently adopted GHG thresholds do not include numeric targets. Therefore, operational GHG emissions from build out of the NVCAP were not estimated.

Plan-Level Impact

Pursuant to the BAAQMD CEQA Air Quality Guidelines, a local government may prepare a qualified GHG reduction strategy (climate action plan) that is consistent with AB 32 goals. The climate action plan should identify goals, policies, and implementation measures that will achieve the required GHG emissions targets of 40 percent below 1990 levels by 2030 and support the State's goal of achieving carbon neutrality[63] by 2045. If a jurisdiction adopts such a climate action plan, it can then use that plan when it adopts its general plan updates and similar long-range planning documents to

[63] "Carbon neutrality" is defined in Executive Order B-55-18 as the point at which the removal of carbon pollution from the atmosphere meets or exceeds carbon emissions. Carbon neutrality is achieved when carbon dioxide and other GHGs generated by sources such as transportation, power plants, and industrial processes are less than or equal to the amount of carbon dioxide that is stored, both in natural sinks and mechanical sequestration.

provide the basis for demonstrating that the jurisdiction's GHG emissions will decline consistent with the State's 2030 and 2045 targets.[64]

In June 2023, the City of Palo Alto adopted the 2022 S/CAP. As a Qualified Climate Action Plan, the 2022 S/CAP allows for tiering and streamlining of GHG analyses under CEQA. The City's 2022 S/CAP establishes the goals of reducing carbon emissions to 80 percent below 1990 levels by 2030 and achieving carbon neutrality by 2030. Pursuant to the BAAQMD CEQA Air Quality Guidelines, long-range plans would have a less than significant impact related to operational GHG emissions if the plan demonstrates consistency with the GHG reduction strategy criteria in the CEQA Guidelines Section 15183.5(b).[65]

Palo Alto has already made significant progress in its sustainability and climate action efforts, decreasing its community emissions by 53.9 percent compared to 1990 levels, which exceeds the State's goal of 40 percent reduction by 2030. In order for the City to achieve the 80 percent reduction by 2030 and carbon neutrality goals, Palo Alto must meet a GHG emissions target of 156,024 MT CO_2e, or 2 MT CO_2e per Palo Alto resident by 2030. Palo Alto will need to reduce total emissions by about 203,288 MT CO_2e, requiring a significant increase in the scale and speed of reductions. The S/CAP provides goals, strategies, and key actions in eight areas: Climate Action, Energy, Mobility, Electric Vehicles, Water, Climate Adaptation and Sea Level Rise, Natural Environment, and Zero Waste. A summary of the NVCAP's consistency with the S/CAP is provided in Table 3.6-2 below.

Table 3.6-2: S/CAP Consistency Analysis

Policy	Consistency with S/CAP
Goals: • Reduce GHG emissions 80% below 1990 levels by 2030	
C1. Enable any resident to receive guidance on reducing their building and transportation emissions via phone consultations, interactive web applications, or communications platforms	Directive to the City. Not Applicable to NVCAP or future development within the plan area.
C2. Work with major employers, including Stanford entities, to develop custom emissions reduction plans that address commute, building, and other emissions on an employer-by-employer basis.	Directive to the City. Not Applicable to NVCAP or future development within the plan area.
C3. Complete study to identify any additional Energy, EV, or Mobility key actions needed to achieve 80% reduction in greenhouse gas emissions from 1990 levels by 2030, such as electrification of additional multifamily or commercial end uses, greater	Directive to the City. Not Applicable to NVCAP or future development within the plan area.

[64] Bay Area Air Quality Management District. "2022 CEQA Guidelines." Accessed August 8, 2023. https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-guidelines-2022/ceqa-guidelines-chapter-7-plan-level-impacts_final-pdf.pdf?la=en .

[65] Bay Area Air Quality Management District. "2022 CEQA Guidelines." Accessed August 8, 2023. https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-guidelines-2022/ceqa-guidelines-chapter-7-plan-level-impacts_final-pdf.pdf?la=en .

Policy	Consistency with S/CAP
electrification of vehicles, or other emissions reduction actions not already identified in this Plan.	
C4. Complete a technical and legal study of the staffing and other resources needed to operate programs, services, and related City processes at a high enough capacity to accommodate all necessary emissions reduction activities through 2030	Directive to the City. Not Applicable to NVCAP or future development within the plan area.
C5. Complete a technical and legal study of funding alternatives, such as a carbon tax, parcel taxes, or other community funding mechanisms.	Directive to the City. Not Applicable to NVCAP or future development within the plan area.
C6. Complete an affordability study to identify vulnerable populations and businesses who may need help with electrification and the scale of subsidy needed. Develop a Council approved affordability policy to guide incentive and program funding design.	Directive to the City. Not Applicable to NVCAP or future development within the plan area.
C7. Complete a study of carbon neutrality options, including the potential contribution of expansion of the Palo Alto urban canopy in achieving carbon neutrality goals.	Directive to the City. Not Applicable to NVCAP or future development within the plan area. However, the plan will create improved streetscapes and a public park that will provide more opportunity for improved canopy.
C8. Present options for Council consideration to accelerate EV, Mobility, and Energy emissions reduction activities identified in this Plan through mandates or price signals, such as building emissions performance standards, carbon pricing, on-sale or replace-onburnout ordinances, parking rules in public and private spaces, and withdrawal of gas by a date certain.	Directive to the City. Not Applicable to NVCAP or future development within the plan area.
Goals: • Reduce GHG emissions from the direct use of natural gas in Palo Alto's building sector by at least 60 percent below 1990 levels (116,400 MT CO_2e reduction) • Modernize the electric grid to support increased electric demand and to accommodate state-of-the-art technology	
E1. Reduce all or nearly all greenhouse gas emissions in single-family appliances and equipment, including water heating, space heating, cooking, clothes drying, and other appliances that use natural gas.	Any new development or substantial remodels within the plan area will require that the building be all-electric in accordance with PAMC Section 16.14 (Ordinance 5570).
E2. Reduce greenhouse gas emissions in non-residential equipment, including mixed-fuel rooftop packaged HVAC units, cooking equipment, and small nonresidential gas appliances.	Any new development or substantial remodels within the plan area will require that the building be all-electric in accordance with PAMC Section 16.14 (Ordinance 5570).
E3. Partner with major facility owners to reduce gas use in major facilities by at least 20%.	Not Applicable to NVCAP or future development within the plan area.
E4. Reduce natural gas use at City facilities	Not Applicable to NVCAP or future development within the plan area. There are no existing city facilities in the NVCAP area.

Policy	Consistency with S/CAP
E5. Support income-qualified residents and vulnerable businesses with electrification efforts while ensuring affordability of on-going utility bills.	Not Applicable to NVCAP or future development within the plan area.
E6. Develop electric rate options for electrified homes, EV charging, and solar + storage microgrid customers.	Not Applicable to NVCAP or future development within the plan area.
E7. Use codes and ordinances - such as the energy reach code, green building ordinance, zoning code, or other mandates - to facilitate electrification in both existing buildings and new-construction projects where feasible.	Any new development or substantial remodels within the plan area will require that the building be all-electric in accordance with PAMC Section 16.14 (Ordinance 5570).
E8. Develop and implement an electric grid modernization plan to increase capacity and resilience.	Not Applicable to NVCAP or future development within the plan area.
E9. Seek additional electrification opportunities in commercial and multi-family buildings to contribute as much as possible towards achieving an additional 8% city-wide emissions reduction below 1990 levels.	Any new development or substantial remodels within the plan area will require that the building be all-electric in accordance with PAMC Section 16.14 (Ordinance 5570). Replacement water heaters for multi-family and single-family residential area also required to be all electric regardless of whether it's part of a substantial remodel.
Goals: • Reduce transportation related GHG emissions at least 65% below 1990 levels (215,696 MT CO_2e reduction) • Develop a public and private charging network to support EV adoption	
EV1. Raise awareness of financial and emission savings of alternative transportation modes, micro-mobility (such as e-bikes and e-scooters), EVs, the economics of these transportation modes compared to gasoline vehicles, and available incentives.	Not Applicable to NVCAP or future development within the plan area.
EV2. Collaborate with regional partners, other agencies, and local nonprofit partners to promote EV adoption regionally to reduce commuter and visitor emissions.	Not Applicable to NVCAP or future development within the plan area. However, required installation of infrastructure in accordance with PAMC 16.14.240 furthers this policy.
EV3. Partner with employers and business districts to promote commuter EV adoption and EV charging access as well as alternative commute promotion.	Not Applicable to NVCAP or future development within the plan area.
EV4. Facilitate the adoption of EVs, e-bikes and other light EVs.	Not Applicable to NVCAP or future development within the plan area. However, required installation of infrastructure in accordance with PAMC 16.14.240 furthers this policy.
EV5. When offering programs to facilitate EV adoption, EV charger installation, or building electrification, promote alternative transportation modes and infrastructure to support adoption (such as bicycle or micro-mobility infrastructure) as well where feasible.	Not applicable to future development within the NVCAP. However, future projects would be required to comply with any bicycle parking/micro-mobility requirements per 18.52 and 18.24 of the code, which improve infrastructure for alternative modes of transportation, furthering this policy.
EV6. Expand access to on-site EV charging for multi-family residents.	All new multi-family development is required to comply with PAMC Section 16.14.420, which requires

Policy	Consistency with S/CAP
	at least one EV ready stall per unit for multi-family (this includes at minimum conduit and plug installed as well as sufficient circuit capacity). Additional EV installed/EV ready requirements apply to guest parking spaces and ADA spaces as well.
EV7. Improve access to EV charging for income-qualified residents	Not Applicable to NVCAP or future development within the plan area. However, new development is required to comply with EV requirements set forth in PAMC Section 16.14.420 as it applies to each type of new development.
EV8. Evaluate mandates or other mechanisms to ensure EV charging capacity is available to support EV growth	PAMC Section 16.14.420 requires sufficient planned circuit capacity as part of the development of any new structures to accommodate future EV. Any future development within the NVCAP area would comply with this requirement.
EV9. Convert all Palo Alto municipal vehicles to EVs when feasible and when the replacement is operationally acceptable	Not Applicable to NVCAP or future development within the plan area.
EV10. Support state policy efforts to electrify fleet vehicles, including delivery trucks	Not Applicable to NVCAP or future development within the plan area. However, it should be noted that all construction fleet vehicles would comply with BAAQMD requirements for Tier 4 equipment.
Goals: • Reduce total vehicle miles traveled 12 percent by 2030, compared to a 2019 baseline, by reducing commute vehicle miles traveled 20 percent, visitor vehicles miles traveled 10 percent, and resident vehicle miles traveled 6 percent • Increase the mode share for active transportation (walking, biking) and transit from 19 to 40 percent of local work trips by 2030	
M1. Implement transportation and land use infrastructure investments, programs, policies, and incentives to increase the mode share for active transportation (walking, biking) and transit for local work trips.	The NVCAP furthers this policy by setting forth a plan for improved multi-modal transportation within the NVCAP area. The plan requires future development within the plan area to comply with the implementation measures set forth in Chapter 7 of the plan to improve multi-modal transportation such as development standards that improve multi-modal connections and pedestrian/bicycle safety. In addition, all projects within the plan area are required to comply with the TDM and bicycle infrastructure requirements set forth in Chapter 18.52 and 18.54 of the code respectively.
M2. Expand the availability of transit and shared mobility services from 61% of residents to 100% of all residents, including a bike/scooter shared micro-mobility service to provide last-mile connections, an on-demand shuttle / transit service pilot, and Neighborhood Mobility Hubs.	Not Applicable to NVCAP or future development within the plan area. The plan area is within walking distance of a major transit stop and high-quality transit corridor.
M3. Update and implement the Bicycle and Pedestrian Transportation Plan to expand bicycle and pedestrian infrastructure and establish a Vision Zero data	Not Applicable to NVCAP or future development within the plan area. However, the plan furthers this policy by providing the framework for improved

Policy	Consistency with S/CAP
collection and analysis program to target safety improvements.	infrastructure and connections for bicyclists and pedestrians.
M4. Improve Transportation Demand Management for employees and residents, including adopting a TDM Ordinance, allocating funding to scale up TDM programming, establishing a Safe Routes for Older Adults/Aging in Place program, and continuing the Safe Routes to School program.	The City has adopted a TDM ordinance, codified in PAMC Section 18.52, which sets forth requirements for when a TDM program must be implemented. Projects within the NVCAP area that require a TDM plan per the municipal code based on the total peak hour trips generated and/or the amount of parking provided must show a 30% reduction in trips. Other policy requirements are not applicable to the NVCAP or future development within the NVCAP area.
M5. Implement smart parking infrastructure in public garages and proposals for Council to price parking in business districts, including implementing an optional Healthy Climate Fee, ideally on gas vehicles, to partially offset GHG emissions from driving to support alternative modes in Palo Alto	Not Applicable to NVCAP or future development within the plan area. There are no existing or planned public garages within the plan area.
M6. Conduct a land use and transportation study to identify scenarios, changes, services, and programs that would reduce greenhouse gas emissions and accommodate projected housing growth without increasing transportation sector emissions. Include mobility equity needs analysis.	Not Applicable to NVCAP or future development within the plan area. However, land use plans such as the NVCAP furthers implementation of this policy by setting forth the framework to provide increased housing growth in a transit-oriented location.
M7. Continue to implement the City's Housing Element of the Comprehensive Plan to improve jobs - housing balance and reduce vehicle miles traveled (VMT).	The NVCAP implements the City's Housing Element by modifying land use and zoning in a manner that encourages higher density housing and mixed-use development near transit.
M8. Improve transit and traffic flow through programs to install transit signal priority equipment, implement traffic signal equipment improvements, and improve transit times	The NVCAP encourages improved circulation for all modes of transit throughout the plan area.
M9. Utilize development regulations and standards to continue creating a housing density and land use mix that supports transit and non-SOV (Single Occupancy Vehicle) transportation modes.	The NVCAP encourages mixed-use development and increases housing density in a transit-rich location (within 0.5 miles of a major transit stop as well as a high-quality transit corridor) which, in turn, reduces VMT in comparison to baseline, as evaluated n the transportation analysis.
M10. Utilize pricing, fees, and other program and policy tools to encourage reductions in GHGs and VMT.	Not Applicable to NVCAP or future development within the plan area. However, the NVCAP sets forth the framework for land use within the plan area that would result in reduced VMT as evaluated in the transportation analysis.
Goals: Reduce Palo Alto's potable water consumption 30% compared to a 1990 baseline (subject to refinement based on forthcoming California water efficiency standards expected in 2024) Develop a water supply portfolio which is resilient to droughts, changes in climate, and water demand and regulations, that supports our urban canopy	

Policy	Consistency with S/CAP
W1. Maximize cost-effective water conservation and efficiency through incentives, outreach/education, and other programs	Not Applicable to NVCAP or future development within the plan area.
W2. Design and build a salt removal facility for the Regional Water Quality Control Plant.	Not Applicable to NVCAP or future development within the plan area.
W3. Develop and implement projects that result from a "One Water" Portfolio for Palo Alto, including but not limited to: stormwater, recycled water, on-site reuse, conservation, groundwater.	Future development within the NVCAP is required to comply with municipal stormwater C3 requirements as well as the Model Water Efficiency Landscape Ordinance requirements, as well as the City's dewatering requirements set forth in Title 16 of the municipal code. The One Water portfolio is still being developed by the City and future projects development within the NVCAP may be required to comply with additional requirements adopted by Council to implement the plan, once complete.
W4. Develop a tool for dynamic water planning in the future.	Not Applicable to NVCAP or future development within the plan area.
Goals: • Develop and adopt a multi-year Sea Level Rise Adaptation Plan including a Sea Level Rise Vulnerability Assessment and adaptation plan • Minimize wildland fire hazards by ensuring adequate provisions for vegetation management, emergency access and communications, inter-agency firefighting, and standards for design and development within wildland areas	
S1. Complete a Sea Level Rise Vulnerability Assessment to identify risks and hazards to the Palo Alto Baylands, City infrastructure, and residential and business property, considering high tide, 100-year coastal storm event scenarios and rising shallow groundwater impacts.	Not applicable to future development within the NVCAP plan area
S2. Develop and implement a Sea Level Rise Adaptation Plan with goals to 1) Preserve and Expand Habitat, and 2) Protect City and Community Assets, and Private Property.	Not applicable to future development within the NVCAP plan area
S3. Determine levee alignment and begin design process for a levee project that protects the Palo Alto community from sea level rise, and incorporates other related priorities including habitat restoration, recreation, transportation, City facilities, and community properties.	Not applicable to future development within the NVCAP plan area
S4. Complete bridge improvements and identify protection strategies from significant flood events.	Not applicable to future development within the NVCAP
S5. Implement the Foothills Fire Management Plan to balance conservation of natural resources with reduction of fire hazards especially in open space areas.	Not applicable to future development within the NVCAP
S6. Minimize fire hazards by maintaining low density zoning in wildland fire hazard areas and enforcing building codes for fire resistant construction	Not applicable to future development within the NVCAP

Policy	Consistency with S/CAP
S7. Work collaboratively with other jurisdictions and agencies to reduce wildfire hazards in and around Palo Alto, with an emphasis on effective vegetation management and mutual aid agreements	Not applicable to future development within the NVCAP
S8. Implement CAL FIRE recommended programs in educating and involving the local community to diminish potential loss caused by wildfire and identify prevention measures to reduce those risks.	Not applicable to future development within the NVCAP
Goals: • Restore and enhance resilience and biodiversity of our natural environment throughout the City • Increase tree canopy to 40 percent city-wide coverage by 2030 • By 2030, achieve a 10 percent increase in land area that uses green stormwater infrastructure to treat urban water runoff, compared to a 2020 baseline	
N1. Develop programs to plant trees to increase tree canopy – that will be integrated with traditional tree planting programs and green stormwater infrastructure programs – and provide carbon sequestration, improve water quality, capture stormwater when feasible, and reduce the urban heat island effect.	Not Applicable to NVCAP or future development within the plan area. However, the plan furthers implementation of this policy by setting forth goals and policies that improve stormwater infrastructure and increase tree planting in the public right-of-way. All future development is required to comply with the City's Tree Protection Ordinance (8.10) which sets forth the requirements that implement the City's no net loss of tree policy as well as the parking lot shading requirements set forth in Chapter 18.54 of the code to reduce heat island effect from parking lots.
N2. Ensure No Net Tree Canopy Loss for all projects.	All future development within the NVCAP is required to comply with the City's no net loss of canopy requirements as codified in PAMC Section 8.10. Note that this code section was also recently amended (effective July 2022) to incorporate additional tree protection measures to reduce loss of matures trees (15" or greater).
N3. Continue to review the use of pesticides in all parks and open space preserves to identify opportunities to further reduce and eliminate the use of pesticides.	Not Applicable to NVCAP or future development within the plan area.
N4. Enhance pollinator habitat by including native plants and pollinator-friendly plant landscaping with all park improvement projects when feasible.	Any park improvements would be required to comply with the findings for architectural review, as codified in PAMC Section 18.76.020, which states: "(5) The landscape design complements and enhances the building design and its surroundings, is appropriate to the site's functions, and utilizes to the extent practical, regional indigenous drought resistant plant material capable of providing desirable habitat that can be appropriately maintained." In practice, staff requires that at least 50% be regionally indigenous and low water use while up to 50% may be non-native so long as they are low water-use and provide desirable habitat (e.g. pollinator-friendly).

Policy	Consistency with S/CAP
N5. Establish a baseline and Key Performance Indicator for carbon storage of tree canopy in the public right-of-way and City-owned property.	Not applicable to the NVCAP or future development within the plan area.
N6. Evaluate and modify plant palette selection in project plans to maximize biodiversity and soil health to adapt to the changing climate and incorporate buffers for existing natural ecosystems.	Any public, commercial, or multi-family modifications that include landscaping modifications would be required to comply with the findings for architectural review, as codified in PAMC Section 18.76.020, which states: "(5) The landscape design complements and enhances the building design and its surroundings, is appropriate to the site's functions, and utilizes to the extent practical, regional indigenous drought resistant plant material capable of providing desirable habitat that can be appropriately maintained." In practice, staff requires that at least 50% be regionally indigenous and low water use while up to 50% may be non-native so long as they are low water-use and provide desirable habitat (e.g. pollinator-friendly).
N7. Coordinate implementation of the Urban Forest Master Plan, Parks Master Plan, and other city-wide planning efforts through interdepartmental collaboration.	The NVCAP furthers the goals of the Parks Master Plan by identifying additional parkland in at least 2-acres or more. Future development would be required to pay park fees, provide parkland dedication, or pay park in-lieu fees (dependent on the type of development), to address the projects impacts on public parks. The NVCAP also sets forth requirements for tree plantings that exceed the current requirements in the City's code, furthering the implementation of the Urban Forest Master Plan.
N8. Expand the requirements of the Water Efficient Landscape Ordinance (WELO) to increase native and drought-tolerant species composition.	All future development within the NVCAP will be required to comply with the code requirements in effect at the time of development. Currently, projects are required to comply with the Model Water Efficiency Landscape Ordinance (MWELO).
N9. Phase out gas-powered lawn and garden equipment, in compliance with California's AB 1346.	Not applicable to the NVCAP except that operation of any existing or future development within the NVCAP shall comply with any regulations in effect once effective. All gas-powered leaf blowers are currently banned in Palo Alto.
N10. Establish policies and ordinance changes as needed to support the Green Stormwater Infrastructure Plan.	The NVCAP furthers implementation of the Green Stormwater Infrastructure Plan by implementing additional policies for projects within the NVCAP that require improvements toward green stormwater infrastructure.
N11. Incorporate green stormwater infrastructure in future municipal projects, including public right-of-way.	The NVCAP furthers implementation of the Green Stormwater Infrastructure Plan by implementing additional policies for projects within the NVCAP that require improvements toward green stormwater infrastructure. City improvements to streets within the NVCAP area will implement the policies set forth in Chapter 3.1 (the sidewalk zone) as well as private developments affecting public sidewalk.

Policy	Consistency with S/CAP
Goals: • Divert 95 percent of waste from landfills by 2030, leading to zero waste • Implement short- and medium-term initiatives identified in the 2018 Zero Waste Plan	
ZW1. Encourage food waste prevention and require edible food recovery for human consumption from commercial food generators.	Not applicable to NVCAP or future development within the plan area
ZW2. Promote residential food waste reduction.	Not applicable to NVCAP or future development within the plan area.
ZW3. Champion waste prevention, reduction, reusables, and the sharing economy (e.g., promote adoption of a "Zero Waste lifestyle", stimulate value of reuse, repair, and access to sharing goods over ownership).	Not applicable to NVCAP or future development within the plan area.
ZW4. Provide waste prevention technical assistance to the commercial sector	Not applicable to NVCAP or future development within the plan area.
ZW5. Prioritize domestic processing of recyclable materials and collaborate with stakeholders on legislation to spur domestic recycling and require traceability of materials processing.	Not applicable to NVCAP or future development within the plan area.
ZW6. Eliminate single-use disposable containers by expanding the Disposable Foodware Ordinance.	All food service establishments within the NVCAP area (existing and proposed) shall comply with Title 5 requirements with respect to single-use containers. All projects shall implement waste requirements to reduce food waste and implements requirements that improve source separation.
ZW7. Expand the Deconstruction and Construction Materials Management Ordinance.	Future development within the NVCAP will be required to comply with the City's Deconstruction and Construction Materials Management Ordinance, which is codified in Chapter 5.24
ZW8. Implement Reach Code standard for low carbon construction materials.	Future development within the NVCAP is required to comply with PAMC 16.14.080 which adopts this reach code standard and requires low carbon concrete requirements.

Project applicants of future development proposed under the NVCAP would be required to comply with the following measure as a Condition of Approval.

Condition of Approval:

- For any future project proposed within the North Ventura Coordinated Area Plan (NVCAP), the project applicant shall demonstrate conformance with the City of Palo Alto's 2022 Climate Action Plan (2022 CAP) by completing the City's 2022 CAP Compliance Checklist.

As documented throughout this EIR, implementation of the NVCAP would result in a net reduction of up to 278,000 square feet of office space and up to 7,500 square feet of retail. A decrease in commercial development and increase in residential uses would translate to lower energy, waste,

and water usage since residential developments have lower building demands. In addition, Palo Alto provides 100 percent carbon neutral natural gas and electricity. Therefore, GHG emissions associated with energy usage would be zero for the project. As discussed in Section 3.11 Transportation, build out under the NVCAP would increase vehicle trips compared to existing conditions. However, the NVCAP includes TDM strategies (refer to Section 2.3.7 of this SEIR) to reduce vehicle trips (which, in turn, reduces mobile GHG emissions). As discussed in Section 3.5 Energy under checklist question a), build out of the NVCAP would not result in wasteful, inefficient or unnecessary energy usage. All future development would be 100 percent electric in compliance with Palo Alto's Reach Code. With implementation of the identified Condition of Approval, impacts from operational GHG emissions within the NVCAP area would be less than significant. **[Same Impact as Approved Project (Less than Significant Impact)]**

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

Assembly Bill 1279

AB 1279 codifies the updated statewide GHG goal of achieving net zero GHG emissions by year 2045. As discussed under checklist question a), the City's S/CAP has a goal of achieving carbon neutrality by 2030, fifteen years sooner than the State's goal. As discussed under checklist question a, the NVCAP would be consistent with the City's S/CAP and would thus support the State's reduction targets.

2017 Clean Air Plan

The BAAQMD 2017 CAP focuses on two goals: protecting public health and protecting the climate. The 2017 CAP includes air quality standards and control measures designed to reduce emissions of methane, carbon dioxide, and other super-GHGs. As discussed in Section 3.2 Air Quality (refer to Table 3.2-5), the NVCAP would be consistent with all applicable control measures prescribed in the 2017 Clean Air Plan; however, build out of the NVCAP would result in a significant and unavoidable increase in criteria air pollutants for which the San Francisco Bay Area Air Basin is considered non-attainment. Accordingly, the NVCAP would conflict with the 2017 CAP.

Plan Bay Area 2050

Plan Bay Area 2050 establishes a course for reducing per capita GHG emissions through the promotion of compact, high-density, mixed-use neighborhoods near transit, particularly within identified PDAs. The majority of future projects under the NVCAP would be located in the California Avenue PDA.[66] As discussed in Section 3.11 Transportation, the center of the NVCAP area is located

[66] Metropolitan Transportation Commission. "Priority Development Areas (Plan Bay Area 2050)." Accessed March 30, 2023. https://opendata.mtc.ca.gov/datasets/priority-development-areas-plan-bay-area-2050/explore?location=37.424370%2C-122.137196%2C16.78

within a half mile of a high-quality transit corridor. In addition, future projects would be required to implement TDM measures that would encourage and incentivize alternatives to driving.

CALGreen and Title 24 Building Code

Future projects under the NVCAP would comply with CALGreen and the Title 24 Building Code, which require energy conservation measures and water conservation measures such as energy efficient lighting, high-efficiency water fixtures, water-efficient irrigation systems. With implementation of mitigation measure GHG-2.1, the NVCAP would be consistent with the CALGreen Tier 1 and Tier 2 standards by requiring EV parking spaces for residential and non-residential uses, and the City's 80 percent construction waste diversion requirements. Reducing energy and water use reduces the GHG emissions associated with conveying those resources.

Palo Alto Sustainability and Climate Action Plan

As discussed above under checklist question a, the City's 2022 S/CAP establishes the goals of reducing carbon emissions to 80 percent below 1990 levels by 2030 and achieving carbon neutrality by 2030. In order for the City to achieve the 80 percent reduction by 2030 and carbon neutrality goals, Palo Alto must meet a GHG emissions target of 156,024 MT CO_2e, or 2 MT CO_2e per Palo Alto resident by 2030. Palo Alto will need to reduce total emissions by about 203,288 MT CO_2e, requiring a significant increase in the scale and speed of reductions. The S/CAP provides goals, strategies, and key actions in eight areas: Climate Action, Energy, Mobility, Electric Vehicles, Water, Climate Adaptation and Sea Level Rise, Natural Environment, and Zero Waste. A summary of the NVCAP's consistency with the S/CAP is provided in Table 3.6-2 above. As described under checklist question a, applicants of future development proposed under the NVCAP would be required to demonstrate compliance with the applicable GHG reduction standards in place at the time the project is initiated as a Condition of Approval. **[Same Impact as Approved Project (Less than Significant Impact)]**

3.6.2.3 *Cumulative Impacts*

Would the project result in a cumulatively considerable contribution to a cumulatively significant GHG emissions impact?

As discussed in this section, GHG emissions have a broader, global impact; therefore, the project's cumulative GHG impacts are discussed above. **[Same Impact as Approved Project (Less than Significant Impact)]**

3.7 Hazards and Hazardous Materials

The information in this section is based, in part, on a Screening Level Phase I Environmental Site Assessment (ESA) prepared by Cornerstone Earth Group in November 2018. This report is included in Appendix D of this SEIR.

3.7.1 Environmental Setting

3.7.1.1 *Regulatory Framework*

Overview

The storage, use, generation, transport, and disposal of hazardous materials and waste are highly regulated under federal and state laws. In California, the U.S. EPA has granted most enforcement authority over federal hazardous materials regulations to the California Environmental Protection Agency (CalEPA). In turn, local agencies have been granted responsibility for implementation and enforcement of many hazardous materials regulations under the Certified Unified Program Agency (CUPA) program.

Worker health and safety and public safety are key issues when dealing with hazardous materials. Proper handling and disposal of hazardous material is vital if it is disturbed during project construction. Cal/OSHA enforces state worker health and safety regulations related to construction activities. Regulations include exposure limits, requirements for protective clothing, and training requirements to prevent exposure to hazardous materials. Cal/OSHA also enforces occupational health and safety regulations specific to lead and asbestos investigations and abatement.

Federal

<u>Federal Aviation Regulations Part 77</u>

Federal Aviation Regulations, Part 77 Objects Affecting Navigable Airspace (FAR Part 77) sets forth standards and review requirements for protecting the airspace for safe aircraft operation, particularly by restricting the height of potential structures and minimizing other potential hazards (such as reflective surfaces, flashing lights, and electronic interference) to aircraft in flight. These regulations require that the Federal Aviation Administration (FAA) be notified of certain proposed construction projects located within an extended zone defined by an imaginary slope radiating outward for several miles from an airport's runways, or which would otherwise stand at least 200 feet in height above the ground.

<u>Comprehensive Environmental Response, Compensation, and Liability Act</u>

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, was enacted by Congress on December 11, 1980. This law created a tax on the chemical and petroleum industries and provided broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. Over five years, $1.6 billion was collected and the tax went to a trust fund for cleaning

up abandoned or uncontrolled hazardous waste sites. CERCLA accomplished the following objectives:

- Established prohibitions and 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.

The law authorizes two kinds of response actions:

- Short-term removals, where actions may be taken to address releases or threatened releases requiring prompt response; and
- Long-term remedial response actions that permanently and significantly reduce the dangers associated with releases or threats of releases of hazardous substances that are serious, but not immediately life-threatening. These actions can be completed only at sites listed on the EPA's National Priorities List.

CERCLA also enabled the revision of the National Contingency Plan (NCP). The NCP provided the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The NCP also established the National Priorities List. CERCLA was amended by the Superfund Amendments and Reauthorization Act on October 17, 1986.[67]

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA), enacted in 1976, is the principal federal law in the United States governing the disposal of solid waste and hazardous waste. RCRA gives the U.S. EPA the authority to control hazardous waste from the "cradle to the grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also sets forth a framework for the management of non-hazardous solid wastes.

The Federal Hazardous and Solid Waste Amendments (HSWA) are the 1984 amendments to RCRA that focused on waste minimization, phasing out land disposal of hazardous waste, and corrective action for releases. Some of the other mandates of this law include increased enforcement authority for the U.S. EPA, more stringent hazardous waste management standards, and a comprehensive underground storage tank program.[68]

[67] United States Environmental Protection Agency. "Superfund: CERCLA Overview." Accessed March 27, 2023. https://www.epa.gov/superfund/superfund-cercla-overview.

[68] United States Environmental Protection Agency. "Summary of the Resource Conservation and Recovery Act." Accessed March 27, 2023. https://www.epa.gov/laws-regulations/summary-resource-conservation-and-recovery-act.

Hazardous Materials Transportation Act

The transportation of hazardous materials is regulated by the Hazardous Materials Transportation Act, which is administered by the U.S. Department of Transportation (DOT). The Hazardous Materials Transportation Act governs the safe transportation of hazardous materials by all modes. The DOT regulations that govern the transportation of hazardous materials are applicable to any person who transports, ships, or causes to be transported or shipped hazardous materials, or who is involved in any way with the manufacture or testing of hazardous materials packaging or containers. The DOT regulations govern every aspect of the movement of hazardous materials including packaging, handling, labeling, marking, placarding, operational standards, and highway routing.

Toxic Substances Control Act

The Toxic Substances Control Act (TSCA) of 1976 provides the U.S. EPA with authority to require reporting, record-keeping and testing requirements, and restrictions relating to chemical substances and/or mixtures. Certain substances are generally excluded from TSCA, including, among others, food, drugs, cosmetics, and pesticides. The TSCA addresses the production, importation, use, and disposal of specific chemicals including polychlorinated biphenyls (PCBs), asbestos, radon, and lead-based paint.

Asbestos-Containing Materials

Friable asbestos is any asbestos-containing material (ACM) that, when dry, can easily be crumbled or pulverized to a powder by hand, allowing the asbestos particles to become airborne. Common examples of products that have been found to contain friable asbestos include acoustical ceilings, plaster, wallboard, and thermal insulation for water heaters and pipes. Common examples of non-friable ACMs are asphalt roofing shingles, vinyl floor tiles, and transite siding made with cement. The EPA began phasing out use of friable asbestos products in 1973 and issued a ban in 1978 on manufacture, import, processing, and distribution of some asbestos-containing products and new uses of asbestos products.[69] The U.S. EPA is currently considering a proposed ban on on-going use of asbestos.[70] National Emission Standards for Hazardous Air Pollutants (NESHAP) guidelines require that potentially friable ACMs be removed prior to building demolition or remodeling that may disturb the ACMs.

State

Government Code Section 65962.5

Section 65962.5 of the Government Code requires CalEPA to develop and update a list of hazardous waste and substances sites, known as the Cortese List. The Cortese List is used by state and local agencies and developers to comply with CEQA requirements. The Cortese List includes hazardous

[69] United States Environmental Protection Agency. "EPA Actions to Protect the Public from Exposure to Asbestos." Accessed March 27, 2023. https://www.epa.gov/asbestos/epa-actions-protect-public-exposure-asbestos

[70] Ibid.

substance release sites identified by the Department of Toxic Substances Control (DTSC) and State Water Resources Control Board (SWRCB).[71]

California Health and Safety Code

California HSC Section 25150 requires DTSC to adopt, and revise when appropriate, standards and regulations for the management of hazardous wastes to protect against hazards to the public health, domestic livestock, wildlife, or the environment. In adopting or revising standards and regulations pursuant to this chapter, the department shall, insofar as practicable, make the standards and regulations conform with corresponding regulations adopted by the USEPA pursuant to the federal act. This section does not prohibit the department from adopting standards and regulations that are more stringent or more extensive than federal regulations.

Additionally, the DTSC under the authority of RCRA and in accordance with the California Hazardous Waste Control Law (California H&SC Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (Title 22, California Code of Regulations (CCR), Divisions 4 and 4.5), is responsible for regulating hazardous waste, cleaning up existing contamination, and controlling and reducing hazardous waste produced in California.

Screening Levels

CalEPA, in cooperation with the DTSC, the SWRCB, and the Office of Environmental Health Hazard Assessment, publishes a list of screening numbers for select contaminants. Screening numbers are defined as the concentration of a contaminant published by CalEPA as an advisory number. In determining screening numbers, CalEPA considers the toxicology of the contaminant, risk assessments prepared by federal or state agencies, epidemiological studies, risk assessments or other evaluations of the contaminant during remediation of a site, and screening numbers that have been published by other agencies.

In January 2018, the DTSC's Human and Ecological Risk Office issued Human Health Risk Assessment Note Number 3. The document lists DTSC-modified screening levels (DTSC-SL) for select compounds in soil, tap water, and air for use in the human health risk assessment process at hazardous waste sites and permitted facilities, and the DTSC-SLs were last updated in 2020.

California Accidental Release Prevention Program

The California Accidental Release Prevention (CalARP) Program aims to prevent accidental releases of regulated hazardous materials that represent a potential hazard beyond the boundaries of a property. Facilities that are required to participate in the CalARP Program use or store specified quantities of toxic and flammable substances (hazardous materials) that can have off-site consequences if accidentally released. The Santa Clara County Department of Environmental Health (SCCDEH) reviews CalARP risk management plans as the CUPA.

[71] California Environmental Protection Agency. "Cortese List Data Resources." Accessed March 27, 2023. https://calepa.ca.gov/sitecleanup/corteselist/.

California Hazardous Materials Release Response Plans and Inventory Law

The California Hazardous Materials Release Response Plans and Inventory Law of 1985 (Business Plan Act) requires that any business that handles hazardous materials prepare a Hazardous Materials Business Plan. The Business Plan must include details of the facility and business conducted at the project site, an inventory of hazardous materials that are handled or stored on site, an emergency response plan and a training program for safety and emergency response for new employees, with annual refresher courses.

CCR Title 8, Section 1532.1

The United States Consumer Product Safety Commission banned the use of lead-based paint in 1978. Removal of older structures with lead-based paint is subject to requirements outlined by the Cal/OSHA Lead in Construction Standard, CCR Title 8, Section 1532.1 during demolition activities. Requirements include employee training, employee air monitoring, and dust control. If lead-based paint is peeling, flaking, or blistered, it is required to be removed prior to demolition.

CCR Title 24, Chapter 9

The California Fire Code (CCR Title 24, Chapter 9) is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The California Fire Code regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. The California Fire Code and the California Building Code use a hazard classification system to determine what protective measures are required to protect fire and life safety. These measures may include construction standards, separations from property lines, and specialized equipment. To ensure that these safety measures are met, the California Fire Code employs a permit system based on hazard classification.

HSC Division 13, Section 19827.5

California Health and Safety Code Section 19827.5 prohibits the issuance of demolition permits prior to the receipt of a written asbestos notification confirming that the building that has been submitted to the United States Environmental Protection Agency or to a designated state agency, or both, pursuant to Part 61 of Title 40 of the Code of Federal Regulations, or the successor to that part. The permit may be issued without the applicant submitting a copy of the written notification if the applicant declares that the notification is not applicable to the scheduled demolition project.

Public Resources Code 21151.4

Pursuant to Public Resources Code Section 21151.4, projects that can be reasonably anticipated to produce hazardous air emissions or handle extremely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school must consult with the potentially affected school district and provide written notification not less than 30 days prior to the proposed certification or adoption of an environmental document. Where a school district proposes property acquisition or the construction of a school, the environmental document must address existing environmental hazards, and written findings must be prepared regarding existing pollutant sources.

Regional

Bay Area Air Quality Management District Regulation 11, Rule 2

BAAQMD regulates demolition and renovation operations involving ACMs through Rule 2, which applies to any planned renovation that involves 100 square feet, 100 linear feet, or 35 cubic feet or more of ACMs, as well as to all demolitions regardless of ACM content. The requirements include a noticing period, the conducting of a pre-demolition survey for ACM materials by a certified inspector, and a general prohibition on demolition until ACM has been abated and removed from the location and requires that abatement be conducted by persons with specific asbestos certifications (primarily Asbestos Hazard Emergency Response Act [AHERA] certification).

Municipal Regional Permit Provision C.12.f

Polychlorinated biphenyls (PCBs) were produced in the United States between 1955 and 1978 and used in hundreds of industrial and commercial applications, including building and structure materials such as plasticizers, paints, sealants, caulk, and wood floor finishes. In 1979, the U.S. EPA banned the production and use of PCBs due to their potential harmful health effects and persistence in the environment. PCBs can still be released to the environment today during demolition of buildings that contain legacy caulks, sealants, or other PCB-containing materials.

With the adoption of the San Francisco Bay Region Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) Permit (MRP) by the San Francisco Bay Regional Water Quality Control Board on November 19, 2015, Provision C.12.f requires that permittees develop an assessment methodology for applicable structures planned for demolition to ensure PCBs do not enter municipal storm drain systems.[72] Municipalities throughout the Bay Area are currently modifying demolition permit processes and implementing PCB screening protocols to comply with Provision C.12.f. Buildings constructed between 1950 and 1980 that are proposed for demolition must be screened for the presence of PCBs prior to the issuance of a demolition permit. Single family homes and wood-frame structures are exempt from these requirements.

Santa Clara County Local Hazard Mitigation Plan

The Santa Clara County Countywide Local Hazard Mitigation Plan (LHMP) is a multi-jurisdictional plan that integrates hazard mitigation across the County and is intended to prepare the community for potential life-threatening emergencies, such as fire, flood, and earthquakes. The LHMP provides a framework for hazard mitigation and emergency preparedness.

[72] California Regional Water Quality Control Board. *San Francisco Bay Region Municipal Regional Stormwater NPDES Permit.* November 2015.

Local

2030 Comprehensive Plan

The following policies in the City's Comprehensive Plan have been adopted for the purpose of reducing or avoiding impacts related to hazards and hazardous materials and are applicable to the project.

Policy/Program	Description
S-1.10	Follow the guidelines in the Emergency Operations Plan and continue towards implementing the four phases of Emergency Management: mitigation/prevention, preparedness, response, and recovery.
S1.10.3	Implement the mitigation strategies and guidelines provided by the [LHMP], including those that address evolving hazards resulting from climate change.
S1.13.4	Enhance the safety of City-owned natural gas pipeline operations. Work with customers, public safety officials and industry leaders to ensure the safe delivery of natural gas throughout the service area. Provide safety information to all residents on City-owned natural gas distribution pipelines.
S-2.1	Incorporate the [LHMP] ...into the Safety element. In the event of any conflict between the provisions of the LHMP and any other provision of the Safety Element, the LHMP shall control.
S-3.2	Continue working with appropriate agencies to identify and clean up hazardous waste sites and contaminated groundwater.
S-3.3	Support public health by requiring as part of development review, property owners and private entities to disclose the presence of contaminated soil or groundwater, identify potential health impacts, prevent vapor intrusion, and remediate contamination.
S-3.4	Support public agency policies, regulations, legislation, and programs that implement Santa Clara County's Hazardous Materials Management Program.
S-3.5	Protect City authority for the approval or denial of proposed commercial hazardous waste treatment, storage, or disposal facilities in the city. Continue to support the concept of "fair share" agreements between counties in the siting of such facilities.
S-3.6	Work with the appropriate agencies, including Caltrain, to decrease the risks associated with rail infrastructure in Palo Alto, including the movement of hazardous materials through the city and the dangers of passenger trains in a fully developed, populated environment.

City of Palo Alto Municipal Code

Construction-Related Groundwater Dewatering – Chapter 16.28

The City of Palo Alto incorporates numerous requirements related to groundwater dewatering in Chapter 16.28 of its Municipal Code. Although most of the regulations deal with ensuring groundwater is not wasted or altering the groundwater flow or direction, the regulations also deal with the treatment of contaminated groundwater. The regulations are administered by the City's Public Works Engineering Department and include requirements for a Geotechnical Report and Hydrogeological Report and set restrictions on dewatering operations. Chapter 16.28 also requires compliance with RWQCB dewatering regulations.

Hazardous Materials Storage – Title 17

Title 17 of the Municipal Code includes regulations intended for the prevention and control of unauthorized discharges of hazardous materials. Chapter 17.08 addresses materials regulated and those that are excluded. Chapter 17.10 discusses underground storage tank requirements, including fees, permitting and inspection procedures, and monitoring requirements. Chapter 17.12 includes containment standards for new and existing storage facilities. Chapters 17.16 and 17.20 discuss hazardous materials management plans and hazardous materials inventories, respectively. Reporting responsibilities, inspections, and records are discussed in Chapters 17.24 and 17.28. Hazardous materials storage permits are discussed in Chapter 17.32.

Special Regulations for Hazardous Waste Facilities – Chapter 18.64

Chapters 18.64.010 to 18.64.060 of the City's Municipal Code contains provisions for new or expanded hazardous waste facilities to comply with certain siting criteria, contained in the Santa Clara County Hazardous Waste Management Plan, to assure compatibility with neighboring land uses, adequate mitigation for any identified environmental impacts, and consistency with the City's Comprehensive Plan and zoning and the county hazardous waste management plan.

City of Palo Alto Emergency Operations Plan

Emergency and disaster planning is primarily governed by the City's Emergency Operations Plan (EOP), which is responsible for coordinating agency response to disaster or other large-scale emergencies in Palo Alto with assistance from the Santa Clara County Office of Emergency Services, along with the LHMP. The City's EOP establishes policy direction for emergency planning, mitigation, response, and recovery activities in Palo Alto, and follows the principles of the state Incident Command System and the National Incident Management System. The EOP addresses interagency coordination, procedures to maintain communication with County and State emergency response teams, and methods to assess the extent of damage and management of volunteers.

The City lacks a formal evacuation plan that governs the entire incorporated area and sphere of influence, but area evacuation plans are contained in documents including the Palo Alto 2016 Foothills Fire Management Plan and online public resources provided by the Palo Alto Fire Department such as the Ready, Set, GO! interactive evacuation route map.

City of Palo Alto Hazardous Materials Division

The Fire Prevention Bureau of the Palo Alto Fire Department (PAFD) is the Participating Agency responsible for CUPA implementation within the City. It is responsible for regulating the storage, use, treatment, and disposal of hazardous materials and wastes in Palo Alto, and for administering the Business Plan program and aboveground storage tanks. The Bureau also handles fire code inspections, including inspections related to hazardous material storage.

3.7.1.2 *Existing Conditions*

Site History

Development within the NVCAP area began in 1918, when the site was developed with the former Palo Alto Cannery located at 340 Portage Avenue. Between 1918 and 1949, the cannery was expanded to include nine additional buildings. During this same period, most of the single-family residences currently present in the NVCAP area were constructed. By the late 1960s, most of the NVCAP area had been developed with residential and commercial uses, and by the late 1970s, the NVCAP area had become fully developed. Presently, existing uses on-site consist of single- and multi-family residential, office, commercial services (including automotive), and retail uses.

On-Site Sources of Contamination

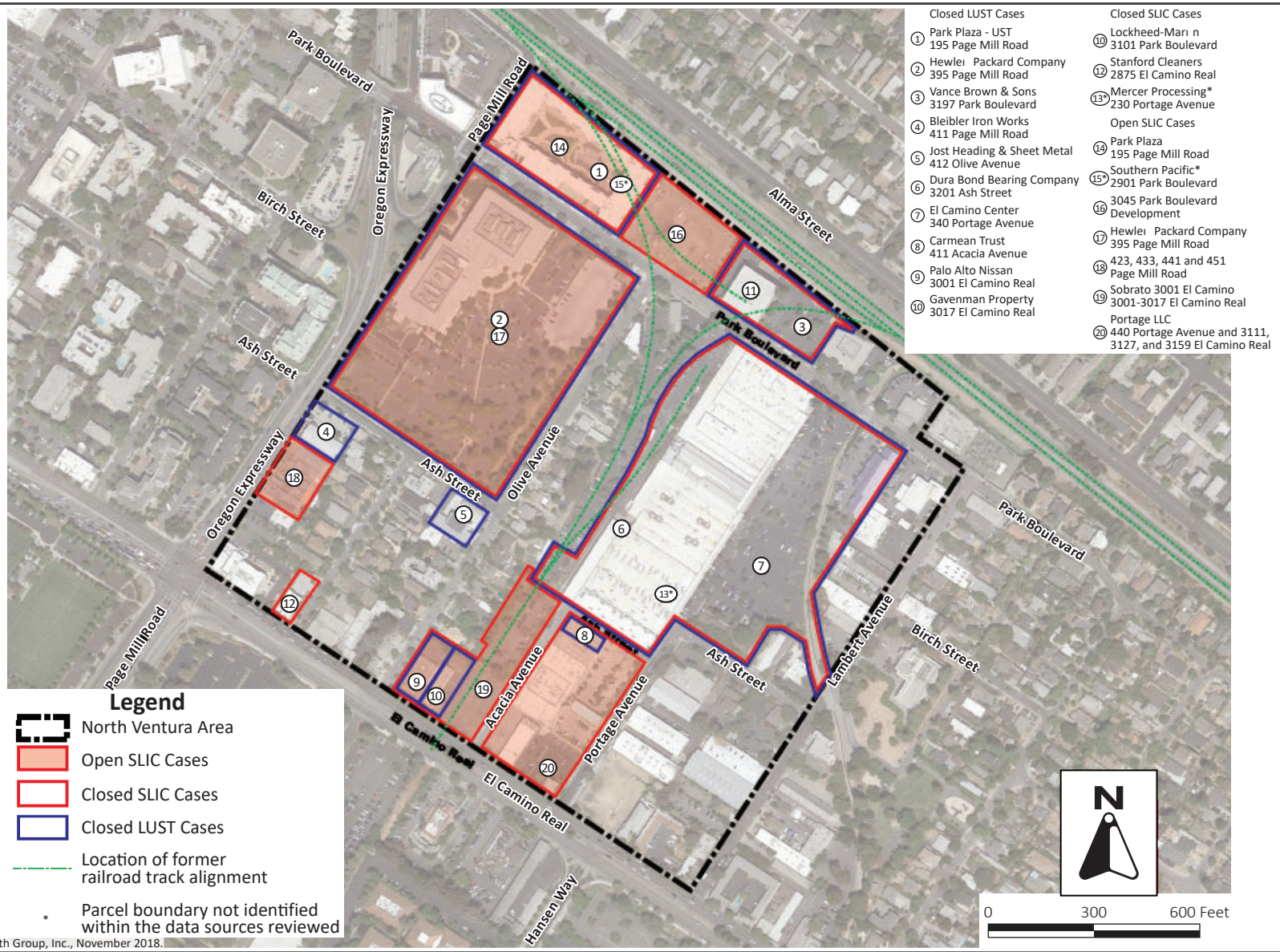
Within the NVCAP area, the Screening Level Phase I ESA identified 10 sites listed on the Spills, Leaks, Investigations, and Cleanup (SLIC) database. Six of these cases are still listed as open in the SLIC database. There are also 10 sites that are listed as "closed" on the Cortese List in association with leaking underground storage tanks (LUST) cases. All the closed LUST sites are listed in the SLIC database except for two properties (Bleibler Iron Works located at 411 Page Mill Road and Jost Heating and Sheet Metal located at 412 Olive Avenue). The location of the properties listed on the SLIC database and/or Cortese List is shown in Figure 3.7-1. Based on these listings, the Screening Level Phase I ESA determined that soil, soil vapor, and groundwater on-site may be contaminated with volatile organic compounds (VOCs), petroleum hydrocarbons, and metals.

Additionally, due to the historic release of VOCs on-site at 395 Page Mill Road and off-site releases of VOCs at 640 Page Mill Road and 601 California Avenue (discussed in greater detail below) and subsequent co-mingling of VOC-impacted groundwater beneath the surface of the NVCAP area, groundwater and soil vapor within the NVCAP area has elevated concentrations of the chlorinated solvents tetrachloroethene (PCE) and trichloroethene (TCE).

Chemical Storage and Usage

As noted above, existing uses within the NVCAP area consist of single- and multi-family residential, office, commercial services (including automotive), and retail uses. All existing development can be expected to transport, use, and dispose of varying amounts of potentially hazardous materials associated with cleaning supplies, maintenance chemicals, and herbicides and pesticides for landscape maintenance. Additionally, there are 13 properties within the NVCAP area recorded as "small quantity generators" (SQGs) of hazardous waste in the RCRA database.[73] There are no properties listed as "large quantity generators" (LQGs) of hazardous waste in the RCRA database.[74] Hazardous materials transported, used, and disposed of by the SQGs within the NVCAP area include pharmaceutical waste, oils, halogenated organic compounds, latex, organic liquids and solids, solvents, laboratory chemicals, mercury, ACMs, and photo-chemicals.

[73] SQGs generate between 100-1,000 kg of hazardous waste per month.
[74] LQGs generate between over 1,000 kg of hazardous waste or 1 kg of acutely hazardous waste per month.



Source: Cornerstone Earth Group, Inc., November 2018.

MAPPED SPILL SITES IN THE NVCAP AREA | FIGURE 3.7-1

Asbestos, Lead-Based Paint, Polychlorinated Biphenyls

Due to the age of the existing buildings within the NVCAP area, ACMs and lead-based paints may be present. In addition, materials including lamps, thermostats, light switches that contain mercury, batteries from exit signs, emergency lights, smoke alarms, lighting ballasts which contain PCBs, lead pipes, and roof vent flashings could result in risk to human health and the environment if improperly managed.

Off-Site Sources of Contamination

Within a one-mile radius of the NVCAP area, the Screening Level Phase I ESA identified two off-site sources of contamination of concern associated with releases of VOCs (specifically, the chlorinated solvents PCE and TCE) at 601 California Avenue and 640 Page Mill Road.[75] Cleanup and remediation activities at 601 California Avenue and its potentially affected area (the California Olive Emerson [COE] Study Area) and 640 Page Mill Road and its potentially affected area (Varian Study Area), the latter of which is a Superfund site, are managed by the SWRCB with guidance and support from the U.S. EPA Superfund Division. Both sites are upgradient of the NVCAP area, and the COE Study Area encompasses a portion of the NVCAP area.

Subsequent investigation of the COE Study Area determined that VOC contaminated groundwater co-mingled with VOC contaminated groundwater at 395 Page Mill Road (which is within the NVCAP area) resulting in an underground contaminated soil vapor plume in the NVCAP area. Groundwater monitoring results from 2018 indicate that groundwater underneath the NVCAP area is contaminated with PCE and TCE in excess of the SWRCB's maximum contaminant levels for drinking water. Indoor air samples collected within the NVCAP area in 2015 did not contain contaminants of potential concern in excess of the SWRCB's short- or long-term environmental screening levels (ESLs) or response action level.

Airport Hazards

The NVCAP area is not located within an airport land use plan (and by extension, is not located in any identified airport noise or safety hazard zones) or within two miles of a public airport. The nearest airport is Palo Alto Airport, located approximately 2.4 miles northeast of the NVCAP area.

Wildland Fire Hazards

The NVCAP area is not mapped within a state or local responsibility area fire hazard severity zone, and pursuant to Map S-8 in the Comprehensive Plan, the NVCAP area is in a low-risk wildfire hazard zone.

[75] This is the American Society for Testing and Materials [ASTM] recommended search distance.

3.7.2 Impact Discussion

For the purpose of determining the significance of the project's impact on hazards and hazardous materials, would the project:

1) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
2) 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?
3) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?
4) 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?
5) 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, result in a safety hazard or excessive noise for people residing or working in the project area?
6) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
7) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

3.7.2.1 *2030 Comprehensive Plan Update FEIR – Hazards and Hazardous Materials Conclusion*

The 2030 Comprehensive Plan Update FEIR concluded that build out under the Comprehensive Plan would result in less than significant hazards and hazardous materials impacts.

3.7.2.2 *Project Impacts*

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

Demolition

Based on the age of many of the existing buildings located in the NVCAP area, hazardous materials such as ACMs, lead-based paint, and PCBs may be present in building materials. Abatement activities would be conducted in accordance with Section 19827.5 of the California Health and Safety Code, BAAQMD regulations (specifically Regulation 11, Rule 2, Hazardous Materials; Asbestos Demolition, Renovation and Manufacturing) and Cal/OSHA requirements. In addition, provision C.12.f of the NPDES MRP requires screening for the presence of PCBs prior to the demolition of any buildings constructed between 1955 and 1980. Accordingly, all lead-based paint, ACMs, and PCBs

present in buildings proposed for demolition under the NVCAP would be identified and disposed of in accordance with the TSCA. Consistent with the findings of the 2030 Comprehensive Plan Update FEIR, adherence with the aforementioned regulations and processes would ensure that future demolition does not create a significant hazard to the public or environment through the disposal of ACMs, lead-based paint, and PCBs.

Construction

Construction of future development under the NVCAP would involve the routine transport, use, and disposal of hazardous materials such as fuel, solvents, paints, oils, grease, and caulking. Such transport, use, and disposal must be compliant with the RCRA, U.S. Department of Transportation hazardous materials regulations, and Cal/OSHA regulations. In addition, the City's Comprehensive Plan (refer to Section 3.7.1.2) and Municipal Code contain policies and regulations designed to ensure hazardous materials do not pose a hazard to the public or environment. Consistent with the findings of the 2030 Comprehensive Plan Update FEIR, adherence with the aforementioned regulations and processes would ensure that the transport, use, or disposal of hazardous materials during future construction activities would not create a significant hazard to the public or the environment.

Operation

As shown in Table 2.3-1, build out of the NVCAP would result in new residential, office, and retail development within the NVCAP area. Operation and maintenance of these types of uses do not involve the use of acutely hazardous materials. Potentially hazardous materials, including cleaning supplies, maintenance chemicals, and herbicides and pesticides for landscape maintenance, can be expected to be used at these types of uses. The transport, use, and disposal of these materials would be subject to the federal, state, and local laws and regulations identified in Section 3.7.1.1. Any future development that would transport, use, and/or dispose of the hazardous materials regulated under Chapter 17.08 of the PAMC would be required to prepare a Hazardous Materials Management Plan (HMMP) pursuant to Chapter 17.16 of the PAMC, ensuring that all hazardous materials are handled to the satisfaction of the PAFD. Future development may include diesel generators to be used in case of emergency; under Health and Safety Code 25507(a)(1)(A), new development would be required to establish and implement a Hazardous Materials Business Plan if the amount of diesel fuel stored on-site exceeds 55 gallons. Adherence with the aforementioned regulations and processes would ensure that the routine transport, use, or disposal of hazardous materials by future development under the NVCAP would not create a significant hazard to the public or the environment.

As discussed above, implementation of the NVCAP would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. **[Same Impact as Approved Project (Less than Significant Impact)]**

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

Demolition

As discussed under checklist question a), all lead-based paint, ACMs, and PCBs present in building proposed for demolition under the NVCAP would be identified and disposed of in accordance with the TSCA, thus ensuring that demolition does not create a significant hazard to the public or environment through the release of ACMs, lead-based paint, and PCBs.

Subsurface Contamination

As documented in Section 3.7.1.1, soil, soil vapor, and groundwater within the NVCAP area is potentially contaminated with VOCs, petroleum hydrocarbons, and metals, and there is documented contamination of subsurface groundwater and soil vapor with the chlorinated solvents PCE and TCE. Future development within the NVCAP area could encounter and disturb contaminated soil, soil vapor, and groundwater, and result in adverse effects on construction workers, existing residents and employees, and nearby sensitive receptors.

The 2030 Comprehensive Plan Update FEIR anticipated future development on sites with subsurface contamination, including the properties within the NVCAP area listed as cleanup program and SLIC/LUST sites (refer to Section 3.7.1.2), and found that adherence with the federal, state, regional, and local regulations identified in Section 3.7.1.1 of this SEIR would ensure that future development does not create a significant hazard to the public or the environment through the disturbance of contaminated soil, soil vapor, and groundwater into the environment. The NVCAP does not propose any specific development or exempt future development from adhering with the aforementioned regulations. All future development (prior to the issuance of any permits allowing ground-disturbing activities that could encounter contaminated soil, soil vapor, and groundwater) would be required by federal and state law to demonstrate compliance with the aforementioned regulations and processes and remediate any subsurface contamination to the satisfaction of the DTSC prior to development. Additionally, all dewatering activities, including the dewatering of contaminated groundwater, would be conducted in accordance with the requirements of the RWQCB and the City's Municipal Code, which would ensure that contaminated groundwater is disposed of properly and is not discharged into the storm drain system. Consistent with the findings of the 2030 Comprehensive Plan Update FEIR, adherence with the aforementioned regulations and processes would ensure that future development under the NVCAP does not create a significant hazard to the public or the environment through the disturbance of contaminated soil, soil vapor, and groundwater **[Same Impact as Approved Project (Less than Significant Impact)]**

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

There is one school (El Carmelo Elementary, located at 3024 Bryant Street) within a quarter mile of the NVCAP area. Residential and retail uses do not emit hazardous emissions or handle acutely hazardous materials. As discussed under checklist question a) above, all lead-based paint, ACMs, and PCBs present in building proposed for demolition under the NVCAP would be identified and disposed of in accordance with the TSCA. Hazardous materials associated with construction activities would be transported, used, and disposed of in accordance with the RCRA, U.S. Department of Transportation hazardous materials regulations, Cal/OSHA regulations, and the City's Comprehensive Plan and Municipal Code. As concluded above, handling of hazardous materials during demolition, construction, and operation of future developments would not create a significant hazard to the public or environment. Pursuant to the discussion under checklist question b), future development would comply with all federal, state, regional, and local regulations regarding subsurface contamination, and would remediate their respective sites to the satisfaction of the DTSC. Consistent with the findings of the 2030 Comprehensive Plan Update FEIR, adherence with the aforementioned regulations and processes would ensure that future development under the NVCAP does not result in the emission of hazardous emissions or exposure of an existing or proposed school to hazardous materials, substances, or waste. **[Same Impact as Approved Project (Less than Significant Impact)]**

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

Within the NVCAP area, there are 10 sites listed in the LUST database, which is one of the lists of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (i.e., the Cortese List). As discussed under checklist question b), future development at these sites could encounter and disturb soil, soil vapor, and groundwater contaminated with VOCs (including the chlorinated solvents PCE and TCE), petroleum hydrocarbons, and metals. Prior to the issuance of any permits allowing ground-disturbing activities that could encounter contaminated soil, soil vapor, and groundwater, applicants would be required by federal and state law to demonstrate compliance with the regulations and processes identified in Section 3.7.1.1 and remediate any subsurface contamination to the satisfaction of the DTSC prior to development. Additionally, all dewatering activities, including the dewatering of contaminated groundwater, would be conducted in accordance with the requirements of the RWQCB and the City's Municipal Code, which would ensure that contaminated groundwater is disposed of properly and is not discharged into the storm drain system. Consistent with the findings of the 2030 Comprehensive Plan Update FEIR, adherence with the aforementioned regulations and processes would ensure that future development at sites on the Cortese List under the NVCAP would not create a significant hazard to the public or the environment. **[Same Impact as Approved Project (Less than Significant Impact)]**

e) If 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?

As discussed in Section 3.7.1.2, the NVCAP area is not located within an airport land use plan (and by extension, is not located in any identified airport noise or safety hazard zones) or within two miles of a public airport. Accordingly, future residents and workers in the NVCAP area would not be exposed to safety hazards or excessive noise associated with airport operations or aircraft. **[Less Impact than Approved Project (No Impact)]**

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

The 2030 Comprehensive Plan Update FEIR concluded that with adherence to the regulations and processes outlined in Section 3.7.1.1, future development would not conflict with the City's EOP. The NVCAP would not exempt future development from adhering with the aforementioned regulations and processes. Additionally, the NVCAP area is not located within any hazard zones and is not in the vicinity of any primary or secondary emergency evacuation routes identified by the PAFD.[76] Build out of the NVCAP would not lead to any permanent road closures or inhibit emergency vehicle access within the NVCAP site and surrounding area (refer to checklist question d) in Section 3.11.2). During construction, the City requires the implementation of traffic management practices to ensure temporary road closures do not totally obstruct ingress or egress and retain emergency vehicle access. The City also requires applicants to notify PAFD and the Palo Alto Police Department (PAPD) in advance of any temporary road closures. For these reasons, implementation of the NVCAP would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. **[Same Impact as Approved Project (Less than Significant Impact)]**

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

As documented in Section 3.1.1.2, no portions of the NVCAP area are mapped within a state or local responsibility area fire hazard severity zone, and pursuant to Map S-8 in the Comprehensive Plan, the NVCAP area is in a low risk wildfire hazard zone. Accordingly, no people or structures would be exposed to a significant risk of loss, injury, or death involving wildland fires as a result of the NVCAP. **[Same Impact as Approved Project [Less than Significant Impact)]**

[76] Palo Alto Fire Department. "Wildfire Urban Interface Planning Map". Accessed April 6, 2023. https://www.google.com/maps/d/viewer?mid=1v_-rjWXC_6h7gwvzCa4oK6FLqTziB6U2&ll=37.38377791447246%2C-122.15710482246402&z=13

3.7.2.3 *Cumulative Impacts*

Would the project result in a cumulatively considerable contribution to a cumulatively significant hazards and hazardous materials impact?

The geographic area for cumulative hazards and hazardous materials impacts is limited to a one-mile radius around the NVCAP area.

Transport, Use, and Disposal of Hazardous Materials

The 2030 Comprehensive Plan Update FEIR concluded that the transport, use, and disposal of hazardous materials by future development within the City of Palo Alto would not create a significant hazard to the public or the environment with adherence to the regulations and processes identified in Section 3.7.1.1, which are mandated by federal and state law. All cumulative projects within the cumulative area of effect would be subject to these regulations and processes. Accordingly, the project would not contribute to a cumulatively considerable impact on the public or environment due to the transport, use, and disposal of hazardous materials.

Release of Hazardous Materials Due to Upset and Accident Conditions

Pursuant to the discussion under checklist question b), build out of the NVCAP would not create a significant hazard to the public or the environment through the release of hazardous materials in the environment. All hazardous materials present in buildings proposed to be demolished (lead-based paint, ACMs, and PCBs) would be abated prior to demolition, all future development under the NVCAP would comply with the regulations and processes identified in Section 3.7.1.1, and applicants would be required to remediate their sites to the satisfaction of the DTSC prior to development. All cumulative projects within the cumulative area of effect would be subject to these same requirements. Consistent with the findings of the 2030 Comprehensive Plan Update FEIR, adherence with the regulations and processes identified in Section 3.7.1.1 by all cumulative projects (as mandated by federal and state law) would ensure that the NVCAP does not contribute to a cumulatively considerable impact due to the release of hazardous materials into the environment.

Hazardous Emissions and Acutely Hazardous Materials, Substances, and Waste

As discussed under checklist question c), residential and retail uses do not emit hazardous emissions or handle acutely hazardous materials. Pursuant to the above discussion, demolition and construction activities under the NVCAP, would not release lead-based paint, ACMs, and PCBs and contaminated soil, soil vapor, or groundwater into the environment with adherence to the regulations and processes identified in Section 3.7.1.1. All cumulative projects within the cumulative area of effect would be subject to these same requirements. Consistent with the findings of the 2030 Comprehensive Plan Update FEIR, adherence with the regulations and processes identified in Section 3.7.1.1 by all cumulative projects (as mandated by federal and state law) would ensure that the NVCAP does not contribute to a cumulatively considerable impact due to hazardous emissions or handling of acutely hazardous materials, substances, or waste.

Government Code Section 65962.5 Sites

There are 10 sites listed on the Cortese List within the NVCAP area; pursuant to the discussion under checklist question d), redevelopment of these sites would not create a significant hazard to the public or the environment with adherence to the regulations and processes identified in Section 3.7.1.1. The 2030 Comprehensive Plan Update FEIR identified the ten sites listed on the Cortese List within the NVCAP area and numerous sites in the surrounding vicinity listed on the Cortese List (refer to Figures 4.7-1 and 4.7-2 incorporated by reference to the 2030 Comprehensive Plan DEIR), and concluded that redevelopment of these sites in accordance with the aforementioned regulations and processes would not create a significant hazard to the public or the environment. Accordingly, because no new Cortese List sites have been identified on or near the NVCAP area since certification of the 2030 Comprehensive Plan Update FEIR, the NVCAP would not result in a cumulatively considerable impact associated with redevelopment of sites listed on the Cortese List.

Airport Safety and Noise Hazards

As discussed under checklist question e), the NVCAP would not expose any people residing or working within the NVCAP area to safety or noise hazards. Therefore, the project would not contribute to a cumulatively considerable impact.

Impairment or Interference with Emergency Plans

As discussed under checklist question f), the 2030 Comprehensive Plan Update FEIR concluded that with adherence to the regulations and processes outlined in Section 3.7.1.1, future development would not conflict with the City's EOP. The NVCAP site and surrounding area are not located within any hazard zones and is not in the vicinity of any primary or secondary emergency evacuation routes identified by the PAFD.[77] Build out of the NVCAP would not lead to any permanent road closures or inhibit emergency vehicle access within the NVCAP site and surrounding area, and all cumulative projects would be required to implement traffic management practices during construction, notify emergency responders of any temporary road closures, and preserve ingress and egress of emergency vehicles. For these reasons, the NVCAP would not result in a cumulatively considerable impact due to the impairment or interference with emergency response or evacuation plans.

Exposure of People and Structures to Wildland Fires

As discussed under checklist question g), the NVCAP would not expose any people or structures to wildland fires. As discussed above, the project would not impair or interfere with emergency response or evacuation plans, including those related to wildland fires. Therefore, the project would not contribute to a cumulatively considerable impact.

[77] Palo Alto Fire Department. "Wildfire Urban Interface Planning Map". Accessed April 6, 2023. https://www.google.com/maps/d/viewer?mid=1v_-rjWXC_6h7gwvzCa4oK6FLqTziB6U2&ll=37.38377791447246%2C-122.15710482246402&z=13

With adherence to existing regulations and policies (including the Comprehensive Plan), the project would not result in a cumulatively considerable contribution to a significant hazardous materials impact. **[Same Impact as Approved Project (Less than Significant Cumulative Impact)]**

3.7.3 Non-CEQA Effects

Per *California Building Industry Association v. Bay Area Air Quality Management District,* 62 Cal. 4th 369 *(BIA v. BAAQMD)*, effects of the environment on the project are not considered CEQA impacts. The following discussion is included for informational purposes only because the City of Palo Alto has policies (specifically, Policy S-3.3) that address existing hazards and hazardous materials conditions affecting a proposed project.

As documented in Section 3.7.1.2, soil, soil vapor, and groundwater within the NVCAP area is potentially contaminated with VOCs, petroleum hydrocarbons, and metals, and there is documented contamination of subsurface groundwater and soil vapor with the chlorinated solvents PCE and TCE. Intrusion of contaminated soil vapor into future development within the NVCAP area could expose occupants to adverse effects associated with the potential contaminants. Policy S-3.3 of the City's 2030 Comprehensive Plan requires property owners and private entities to disclose the presence of contaminated soil or groundwater, identify potential health impacts, prevent vapor intrusion, and remediate contamination during development review. In accordance with Policy S-3.3, the City of Palo Alto imposes the following standard condition of approval on all discretionary projects.

Condition of Approval 3.7.3a:

- Prior to issuance of building permits, the applicant shall retain a qualified environmental consultant, California Professional Geologist (PG) or California Professional Engineer (PE) to assess site conditions to determine both the nature and extent of contamination. If contamination at the site exceeds the most current environmental screening levels (ESLs) identified by the San Francisco Bay Regional Water Quality Control Board (RWQCB), the applicant shall retain a qualified environmental consultant, California PG or California PE to prepare and submit a Site Management and Contingency Plan (SMCP) to either the Department of Toxic Substances Control (DTSC), RWQCB, or the County of Santa Clara Department of Environmental Health (SCCDEH) for approval. The SMCP shall include details regarding the pending development and evaluate remediation and/or mitigation to address any environmental risk identified in the site assessment. The applicant shall agree to and implement all recommendations of the reviewing regulatory agency approving the SMCP in order to reduce the exposure of future occupants to contaminants that exceed the applicable screening levels. If the reviewing agency requires that a sub-slab vapor intrusion barrier system be installed, the Vapor Intrusion Mitigations (VIMs) shall be documented in the building permit plan set prior to issuance of the building permit.

Adherence with the above standard condition of approval would ensure that future development, located on sites in the NVCAP area that are contaminated with soil vapor in excess of the applicable

ESL, shall be remediated to the satisfaction of the responsible oversight agency (DTSC, RWQCB, or the SCCDEH) and, if warranted, install a VIM that prevents significant exposure of occupants to contaminated soil vapor.

3.8 Hydrology and Water Quality

3.8.1 Environmental Setting

3.8.1.1 *Regulatory Framework*

Federal and State

The federal Clean Water Act and California's Porter-Cologne Water Quality Control Act are the primary laws related to water quality in California. Regulations set forth by the U.S. EPA and the State Water Resources Control Board (SWRCB) have been developed to fulfill the requirements of this legislation. U.S. EPA regulations include the National Pollutant Discharge Elimination System (NPDES) permit program, which controls sources that discharge pollutants into the waters of the United States (e.g., streams, lakes, bays, etc.). These regulations are implemented at the regional level by the Regional Water Quality Control Boards (RWQCBs). The NVCAP area is within the jurisdiction of the San Francisco Bay RWQCB.

Under Section 303(d) of the federal Clean Water Act, the SWRCB and RWQCBs are required to identify impaired surface water bodies that do not meet water quality standards and develop total maximum daily loads (TMDLs) for contaminants of concern. The list of the state's identified impaired surface water bodies, known as the "303(d) list" can be found on the on the SWRCB's website.[78]

National Flood Insurance Program

The Federal Emergency Management Agency (FEMA) established the National Flood Insurance Program (NFIP) to reduce impacts of flooding on private and public properties. The program provides subsidized flood insurance to communities that comply with FEMA regulations protecting development in floodplains. As part of the program, FEMA publishes Flood Insurance Rate Maps (FIRMs) that identify Special Flood Hazard Areas (SFHAs). An SFHA is an area that would be inundated by the one-percent annual chance flood, which is also referred to as the base flood or 100-year flood.

Statewide Construction General Permit

The SWRCB has implemented an NPDES General Construction Permit for the State of California (Construction General Permit). For projects disturbing one acre or more of soil, a Notice of Intent (NOI) must be filed with the RWQCB by the project sponsor, and a Storm Water Pollution Prevention Plan (SWPPP) must be prepared by a qualified professional prior to commencement of construction and filed with the RWQCB by the project sponsor. The Construction General Permit

[78] California State Water Resources Control Board. "2020-2022 California Integrated Report (Clean Water Act Section 303(d) List and 305(b) Report)." May 11, 2022. Accessed April 28, 2023. https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2020_2022_integrated_report.html.

includes requirements for training, inspections, record keeping, and, for projects of certain risk levels, monitoring. The general purpose of the requirements is to minimize the discharge of pollutants and to protect beneficial uses and receiving waters from the adverse effects of construction-related storm water discharges.

Regional and Local

San Francisco Bay Basin Plan

The San Francisco Bay RWQCB regulates water quality in accordance with the Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan). The Basin Plan lists the beneficial uses that the San Francisco Bay RWQCB has identified for local aquifers, streams, marshes, rivers, and the San Francisco Bay, as well as the water quality objectives and criteria that must be met to protect these uses. The San Francisco Bay RWQCB implements the Basin Plan by issuing and enforcing waste discharge requirements, including permits for nonpoint sources such as the urban runoff discharged by a City's stormwater drainage system. The Basin Plan also describes watershed management programs and water quality attainment strategies.

Municipal Regional Permit Provision C.3

The San Francisco Bay RWQCB re-issued the Municipal Regional Stormwater NPDES Permit (MRP) in May 2022 to regulate stormwater discharges from municipalities and local agencies (co-permittees) inseveral counties and cities, including Santa Clare County.[79] Under Provision C.3 of the MRP, new and redevelopment projects that create or replace 5,000 square feet or more of impervious surface area are required to implement site design, source control, and Low Impact Development (LID)-based stormwater treatment controls to treat post-construction stormwater runoff. LID-based treatment controls are intended to maintain or restore the site's natural hydrologic functions, maximizing opportunities for infiltration and evapotranspiration, and using stormwater as a resource (e.g. rainwater harvesting for non-potable uses). The MRP also requires that stormwater treatment measures are properly installed, operated, and maintained.

In addition to water quality controls, the MRP requires new development 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 local rivers, streams, and creeks. Projects may be deemed exempt from these requirements if: (1) the post-project impervious surface area is less than, or the same as, the pre-project impervious surface area; (2) the project is located in a catchment that drains to a hardened (e.g., continuously lined with concrete) engineered channel or channels or enclosed pipes, which extend continuously to the Bay, Delta, or flow controlled reservoir, or, in a catchment that drains to channels that are tidally influenced; or

[79] California Regional Water Quality Control Board San Francisco Region. Municipal Regional Stormwater NPDES Permit, Order No. R2-2022-0018, NPDES Permit No. CAS612008. May 11, 2022

(3) the project is located in a catchment or subwatershed that is highly developed (i.e., that is 70 percent or more impervious).[80]

Municipal Regional Permit Provision C.12.f

Provision C.12.f of the MRP requires co-permittee agencies to implement a control program for PCBs that reduces PCB loads by a specified amount during the term of the permit, thereby making substantial progress toward achieving the urban runoff PCBs wasteload allocation in the Basin Plan by March 2030.[81] Programs must include focused implementation of PCB control measures, such as source control, treatment control, and pollution prevention strategies. Municipalities throughout the Bay Area are updating their demolition permit processes to incorporate the management of PCBs in demolition building materials to ensure PCBs are not discharged to storm drains during demolition. Buildings constructed between 1950 and 1980 that are proposed for demolition must be screened for the presence of PCBs prior to the issuance of a demolition permit. Single-family residential and wood frame structures are exempt.

Water Resources Protection Ordinance and District Well Ordinance

Valley Water operates as the flood control agency for Santa Clara County. Valley Water also provides stream stewardship and is the wholesale water supplier throughout the county, which includes the groundwater recharge program. Well construction and deconstruction permits, including borings 45 feet or deeper, are required under Valley Water's Well Ordinance 90-1. Under Valley Water's Water Resources Protection Ordinance, projects within Valley Water property or easements are required to obtain encroachment permits.

2021 Groundwater Management Plan

The 2021 Groundwater Management Plan (GWMP) describes Valley Water's comprehensive groundwater management framework, including existing and potential actions to achieve basin sustainability goals and ensure continued sustainable groundwater management. The GWMP covers the Santa Clara and Llagas subbasins, which are located entirely in Santa Clara County. Valley Water manages a diverse water supply portfolio, with sources including groundwater, local surface water, imported water, and recycled water. About half of the county's water supply comes from local sources and the other half comes from imported sources. Imported water includes the District's State Water Project and Central Valley contract supplies and supplies delivered by the San Francisco Public Utilities Commission (SFPUC) to cities in northern Santa Clara County. Local sources include natural groundwater recharge and surface water supplies. A small portion of the county's water supply is recycled water.

[80] The Hydromodification Applicability Maps developed the permittees under Order No. R2-2009-0074 were prepared using this standard, adjusted to 65 percent imperviousness to account for the presence of vegetation on the photographic references used to determine imperviousness. Thus, the maps for Order No. R2-2009-0074 are accepted as meeting the 70 percent requirement.

[81] California Regional Water Quality Control Board San Francisco Region. *Municipal Regional Stormwater NPDES Permit, Order No. R2-2022-0018, NPDES Permit No. CAS612008*. May 11, 2022

Local groundwater resources make up the foundation of the county's water supply, but they need to be augmented by the District's comprehensive water supply management activities to reliably meet the county's needs. These include the managed recharge of imported and local surface water and in-lieu groundwater recharge through the provision of treated surface water and raw water, acquisition of supplemental water supplies, and water conservation and recycling.[82]

Construction Dewatering Waste Discharge Requirements

Each of the RWQCBs regulates construction dewatering discharges to storm drains or surface waters within its Region under the NPDES program and Waste Discharge Requirements.

Local

2030 Comprehensive Plan

The following policies in the City's Comprehensive Plan have been adopted for the purpose of reducing or avoiding impacts related to hydrology and water quality and are applicable to the project.

Policy	Description
N-4.1	Maintain a safe, clean and reliable long-term supply of water for Palo Alto.
N-4.7	Ensure regulation of groundwater use to protect it as a natural resource and to preserve it as a potential water supply in the event of water scarcity.
N-4.10	Reduce pollution in urban runoff from residential, commercial, industrial, municipal, and transportation land uses and activities.
N-4.12	Promote sustainable low water and pesticide landscaping practices on both public and private property.
N-4.15	Encourage Low Impact Development (LID) measures to limit the amount of pavement and impervious surface in new development and increase the retention, treatment and infiltration of urban stormwater runoff. Include LID measures in major remodels, public projects and recreation projects where practical.
N-4.14	Reduce the discharge of toxic materials into the City's sanitary sewer collection system by promoting the use of BMPs and reducing pollutant levels in City wastewater discharges.

City of Palo Alto Municipal Code

Sewer Use Ordinance – Chapter 16.09

The Sewer Use Ordinance is designed to reduce the amount of pollutants that enter the sanitary sewer, the storm drain system, or surface waters that would obstruct or damage the sanitary sewer or storm drain system or interfere with, inhibit or disrupt the Palo Alto Regional Water Quality Control Plant (RWQCP) or its treatment processes. The intent of the ordinance is to provide a program for protection of the storm drain system and pretreatment of industrial wastes which is approved by federal and State regulatory agencies.

[82] Valley Water. *2021 Groundwater Management Plan, Santa Clara and Llagas Subbasins.* November 2021.

Stormwater Pollution Prevention – Chapter 16.11

This chapter provides the stormwater requirements for projects conducted within the City of Palo Alto and is consistent with the requirements of the San Francisco RWQCB's Municipal Regional Permit.

Recycled Water – Chapter 16.12

This chapter requires that identified customers and applicants for new or redevelopment projects within the boundaries of a recycled water project area use treated non-potable water for construction, toilet and urinal flushing, and irrigation, resulting in an increase in the amount of potable water available for other uses in the city. Recycled water reduces potable water consumption and is not subject to rationing during drought.

Water Efficiency Landscape Ordinance – Chapter 16.14.

The City of Palo Alto has adopted a Water Efficiency Landscape Ordinance in coordination with the Bay Area Water Supply and Conservation Agency (BAWSCA) that exceeds the State's model ordinance in terms of water savings. These provisions are incorporated into the City's new Green Building Ordinance and can be found in Chapters 16.14.140 – Landscape Design, 16.14.200 – Low-Water Consumption Irrigation System, 16.14.310 – Irrigation Efficiency, and 16.14.340 – Potable Water Reduction.

Grading and Erosion and Sediment Control – Chapter 16.28

This chapter requires projects to obtain a grading and excavation permit and requires submittal of an interim erosion and sediment control and stormwater pollution prevention plan (Chapter 16.28.120) that describes the surface runoff and erosion control measures that will be implemented during construction of the project. Chapter 16.28.200 contains the provisions for the final erosion and sediment control and stormwater pollution prevention plan that describes permanent control measures to improve the quality of stormwater runoff from the site.

Flood Hazard Regulations Ordinance – Chapter 16.52

The Flood Hazard Regulations Ordinance is designed to minimize loss of life, damage to private land development, public facilities and utilities, the need for rescue and relief efforts, business interruptions, and future blighted areas caused by flooding. The ordinance also ensures that property owners construct new and substantially improved buildings in the 100-year floodplain in accordance with the National Flood Insurance Program's goals to protect life and property.

Stream Corridor Protection – Chapter 18.40.140 and Storm Water Quality Protection – Chapter 18.40.150

These sections of the City's Municipal Code include requirements and guidelines that protect the integrity of stream corridors and storm water quality consistent with the principles contained in the Santa Clara Valley Water Resources Protection Collaborative.

3.8.1.2 *Existing Conditions*

Hydrology and Drainage

The NVCAP is in the Matadero Creek Watershed, which drains to the San Francisco Bay.

A network of storm drains collects runoff from city streets and carries it to the creeks and San Francisco Bay. Existing storm drain pipes in the NVCAP area were installed between the 1950s and 1960s, with the exception of the pipes between Ash Street and Park Boulevard, which were built in the 1990s.

Surface Water Quality

The water quality of streams, creeks, ponds, and other surface water bodies can be greatly affected by pollution carried in contaminated surface runoff. Pollutants from unidentified sources, known as "non-point" source pollutants, are washed from streets, construction sites, parking lots, and other exposed surfaces into storm drains. Surface runoff from the NVCAP area and surrounding area is collected by storm drains and discharged to Matadero Creek. The runoff often contains contaminants such as oil and grease, plant and animal debris (e.g., leaves, dust, and animal feces), pesticides, litter, and heavy metals. In sufficient concentration, these pollutants have been found to adversely affect the aquatic habitats to which they drain. Matadero Creek is currently listed on the 303(d) list of impaired waterways for pesticides and trash.[83]

Groundwater

Palo Alto lies within the Santa Clara Subbasin of the Santa Clara Valley Groundwater Basin. The Santa Clara Subbasin is divided into confined and recharge areas. Recharge areas are primarily comprised of high permeability aquifer materials like sands and gravels that allow surface water to infiltrate into the aquifers. Most groundwater recharge occurs in these recharge areas. The most southern portion of Palo Alto is in a natural recharge area. However, there are no SCVWD recharge ponds or facilities within the city limits. Typical groundwater depths in Palo Alto range from 10 to 30 feet below ground surface (bgs).

Flooding

According to the FEMA Flood Insurance Rate Map (FIRM), the majority of the NVCAP area is in Flood Zone X (unshaded), except portions of Matadero Creek that are in Flood Zone A.[84] Zone X is the area determined to be outside the 500-year floodplain and protected by levee from a 100-year flood event. Zone A is an area with a one percent annual chance of flooding.

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[83] State Water Resources Control Board. *2020-2022 California Integrated Report*. Accessed March 30, 2023. https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2020_2022_integrated_report.html

[84] Federal Emergency Management Agency. Flood Insurance Rate Map: Santa Clara County Panel 234 of 830. Map Number 06085C0017H. May 18, 2009.

Seiches, Tsunamis, and Mudflows

A seiche is the oscillation of water in an enclosed body of water such as a lake or the San Francisco Bay. There are no landlocked bodies of water near the NVCAP that would affect the site in the event of a seiche.

A tsunami is a sea wave generated by an earthquake, landslide, or other large displacement of water in the ocean. The NVCAP is not located in tsunami inundation area.[85]

A mudflow is the rapid movement of a large mass of mud formed from loose soil and water. The NVCAP area and surrounding area are relatively flat. The NVCAP area is not susceptible to mudflows.

3.8.2 Impact Discussion

For the purpose of determining the significance of the project's impact on hydrology and water quality, would the project:

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

[85] California Department of Conservation. California Tsunami Maps and Data. Accessed March 30, 2023. https://www.conservation.ca.gov/cgs/tsunami/maps

3.8.2.1 *2030 Comprehensive Plan Update FEIR – Hydrology and Water Quality Conclusions*

The 2030 Comprehensive Plan Update FEIR concluded that build out under the Comprehensive Plan would result in less than significant impacts to hydrology and water quality.

3.8.2.2 *Project Impacts*

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

Implementation of the NVCAP could impact water quality during and post-construction of future development. Future development under the NVCAP could require demolition of buildings constructed or remodeled between January 1, 1950 and December 31, 1980, which may contain building materials with PCBs. During demolition, building materials containing PCBs would impact stormwater quality if not properly abated. Compliance with MRP Provision C.12.f would ensure buildings with the potential to include PCBs are identified, samples taken and tested per established standards, and abated in accordance with existing regulations.

Future excavation and grading of sites within the NVCAP could result in sediment and other pollutants being transported from active construction sites to nearby waterways and San Francisco Bay through soil erosion, stormwater runoff, and/or wind-blown dust. To reduce water quality impacts during construction, future development projects that would disturb one acre or more of soil are required to comply with the statewide NPDES Construction General Permit to reduce runoff and pollution in runoff from construction activities, including preparation of a NOI and SWPPP, and implementation of stormwater control BMPs. In the event contaminated groundwater is encountered during future construction activities, all dewatering activities would be conducted in accordance with the requirements of the RWQCB and the City's Municipal Code, which would ensure that contaminated groundwater is disposed of properly and is not discharged into the storm drain system. According to the City's Construction Dewatering System Policy and Plan Preparation Guidelines, excavation activities that encounter groundwater are required to submit a Construction Dewatering Plan to the City's Public Works Department. The Public Works Department would review and permit the dewatering plan prior to commencement of dewatering as part of the Street Work Permit process. The Construction Dewatering Plan must comply with the City's Guidelines, which require that water be tested for contaminants prior to initial discharge and at intervals during dewatering. In the dewatering plan, the applicant must include provisions for keeping sediment and contaminated groundwater out of the storm drain system.

To reduce water quality impacts post-construction, future development that creates or replace 5,000 square feet or more of impervious surface area are required to comply with the MRP (including Provision C.3). LID features for future development could include self-treating and self-retaining areas to allow on-site retention, percolation, and evaporation of stormwater runoff.

Future NVCAP development in compliance with existing regulations including the MRP, Construction General Permit, and PAMC would not result in significant water quality impacts during construction or post-construction. **[Same Impact as Approved Project (Less than Significant Impact)]**

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?

The City receives 100 percent of its water supply from the SFPUC, which obtains its supply from surface water supplies. The NVCAP is located within the Santa Clara Subbasin, which is divided into confined and recharge areas. Most groundwater recharge occurs in these recharge areas. The most southern portion of Palo Alto is in a natural recharge area. However, there are no SCVWD recharge ponds or facilities within the city limits.

Other ways development could affect groundwater supplies and/or recharge is through dewatering activities or direct pumping. Given groundwater depths in Palo Alto range from 10 to 30 feet, it is possible that groundwater could be encountered during future NVCAP development and dewatering may be required. Temporary or permanent dewatering could affect groundwater supplies. As discussed under checklist question a), future projects that require dewatering would be required to submit a Construction Dewatering Plan to the City's Public Works Department. In accordance with the City's Construction Dewatering System Policy and Plan Preparation Guidelines, water would be tested for contaminants prior to initial discharge and at intervals during dewatering. Consistent with the 2030 Comprehensive Plan Update FEIR, future development would be required to implement the following standard permit conditions during construction dewatering activities.

Standard Permit Conditions:

- Prohibit dewatering during the rainy season.
- Encouraging greater fill station use by distributing more door-hangers and enlisting other public outreach regarding dewatering, fill stations, and trees.
- Strengthening outreach on the water cycle and value of freshwater flows to storm drains, creeks, and the Bay.
- Refining requirements for contractor Use Plans, including maximizing on-site water use, one day/week water truck hauling service for neighbors, and City landscaping and piping to nearby parks or major users where feasible.
- Expanding fill station specifications to address water pressure issues resulting from multiple concurrent users, including separate pumps for neighbors where needed and sidewalk bridges for hoses to prevent tripping hazards.
- Broadening the City's Basement Pumping Guidelines to require a determination of the impacts of groundwater pumping on adjacent buildings, infrastructure, and trees or

landscaping. Applicants would determine the size of the temporary cone of depression caused by pumping and avoidance measures would be required if impacts are anticipated. The Urban Forestry staff may develop guidelines for soil enhancement and supplemental watering (by project applicant) for neighboring landscaping. Additional measures could include adjusting the location, depth, or duration of pumping or altering construction methods.

As discussed under checklist question a), future developments that create or replace 5,000 square feet or more of impervious surface area are required to comply with the MRP (including Provision C.3). Implementation of LID features (i.e., self-treating and self-retaining areas to allow on-site retention, percolation, and evaporation of stormwater runoff) would increase the potential for groundwater recharge.

Future development under the NVCAP in compliance with the above standard permit conditions and existing regulations (including the NPDES General Construction Permit and MRP) would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. **[Same Impact as Approved Project (Less than Significant Impact)]**

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 result in substantial erosion or siltation on- or off-site; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flood flows?

Matadero Creek is an approximately 30-foot-wide concrete flood control channel that flows south to north through the NVCAP area. The NVCAP would facilitate creation of a fully naturalized Matadero Creek through the establishment of a 100-foot riparian corridor buffer. Any alterations to the creek would be evaluated pursuant to CEQA once a project-level design is available to properly evaluate the impacts.

The NVCAP proposes to create an approximately two-acre public open space (Matadero Park), along with the creation of a 100-foot riparian buffer. As a result, implementation of the project would result in a net reduction of impervious surfaces. This net decrease in impervious surfaces would result in a corresponding decrease in stormwater runoff. Further, future redevelopment under the NVCAP would be subject to Provision C.3 of the MRP, which requires implementation of stormwater treatment measures that would collect and treat stormwater runoff from all on-site impervious areas prior to discharge into the City's storm drain system.

The proposed project would result in a decrease in stormwater runoff and would not substantially alter the existing drainage pattern of the site or area through the alteration of any waterway. For these reasons, the project would not substantially increase erosion or increase the rate or amount of stormwater runoff. **[Same Impact as Approved Project (Less than Significant Impact)]**

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

As discussed in Section 3.8.1.2 Existing Conditions, the majority of the NVCAP is in Flood Zone X (unshaded) and is outside the 500-year floodplain and protected by levee from a 100-year flood event. Matadero Creek is within the one percent annual chance of flooding (Zone A). The NVCAP area is not subject to seiches or tsunamis. Accordingly, the NVCAP area is not at risk of inundation that would lead to the release of pollutants. Further, any future development that would transport, use, and/or dispose of hazardous materials (as defined under Chapter 17.08 of the PAMC) would be required to prepare a Hazardous Materials Management Plan (HMMP) pursuant to Chapter 17.16 of the PAMC, ensuring that all hazardous materials are stored to the satisfaction of the PAFD. Projects would also be required to comply with the RWQCB Municipal Regional NPDES Permit requirements to reduce the impacts of stormwater runoff on post-construction water quality (refer to checklist question a). Accordingly, implementation of the NVCAP would not risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones. **[Same Impact as Approved Project (Less than Significant Impact)]**

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

Future development that would create or replace 5,000 square feet or more of impervious surface area would be required to comply with the MRP (including Provision C.3) to reduce pollutants from construction and post-construction. As discussed under checklist question b), the NVCAP would not substantially decrease groundwater supplies or substantially interfere with groundwater recharge. Thus, the NVCAP would not conflict with or obstruct implementation of the San Francisco Bay Basin Plan or a sustainable groundwater management plan. **[Same Impact as Approved Project (Less than Significant Impact)]**

3.8.2.3 *Cumulative Impacts*

Would the project result in a cumulatively considerable contribution to a cumulatively significant hydrology and water quality impact?

The geographic area for cumulative hydrology and water quality impacts is the Matadero Watershed.

Water Quality Standards and Discharge Requirements

All cumulative projects (including the project) are required to adhere to state and local regulations to comply with water quality standards and waste discharge requirements, thereby resulting in less than significant impacts to surface or ground water quality. These regulations are in place to ensure individual projects do not result in a significant cumulative impact. The 2030 Comprehensive Plan

Update FEIR concluded that adherence to these regulations by future projects would ensure associated impacts to water quality are less than significant. For these reasons, the cumulative projects (including the NVCAP) would not result in a significant cumulative impact to water quality.

Groundwater Supplies and Recharge

As discussed under checklist question b), 100 percent of the City's water supply comes from surface water and there are no SCVWD recharge ponds or facilities within the city limits. For these reasons, future cumulative development (including the NVCAP) would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge.

Alteration of Existing Drainage Patterns

Cumulative projects (including the project) are required to adhere to existing regulations (including the Construction General Permit and Provision C.3) to manage stormwater runoff and erosion and reduce impacts to a less than significant level. These regulations are in place to ensure individual projects do not result in a significant cumulative impact. The 2030 Comprehensive Plan 2030 FEIR concluded that adherence to these regulations would ensure that future projects do not alter existing drainage patterns in a manner that would result in on- or off-site erosion or flooding. Therefore, the cumulative projects (including the NVCAP) would not result in a significant cumulative impact regarding on- or off-site erosion or flooding.

Project Inundation

Any risk of project inundation due to floods, tsunamis, or seiches resulting in the release of pollutants would be reduced to a less than significant level by compliance with existing regulations regarding the use, storage, transport, and disposal of hazardous materials, as well as Provision C.3 of the RWQCB Municipal Regional NPDES Permit. The NVCAP area is not subject to seiches or tsunamis. Therefore, the cumulative projects (including the NVCAP) would not result in a cumulatively significant risk of pollutant release due to inundation.

Conflicts with Water Quality Control and Sustainable Groundwater Management Plans

All cumulative projects would be required to adhere to existing regulations to ensure compliance with water quality control plans. The plans are in place to ensure individual projects do not result in a cumulative impact to water quality or groundwater management. For these reasons, the NVCAP would not contribute to a cumulatively significant impact related to a water quality control plan or sustainable groundwater management plan.

With adherence to standard permit conditions and existing regulations, the NVCAP would have a less than significant cumulative impact on hydrology and water quality. **[Same Impact as Approved Project (Less than Significant Cumulative Impact)]**

3.9 Land Use and Planning

3.9.1 Environmental Setting

3.9.1.1 *Regulatory Framework*

City of Palo Alto

2030 Comprehensive Plan

The following policies in the City's Comprehensive Plan have been adopted for the purpose of reducing or avoiding impacts related to land use and planning and are applicable to the project.

Policy	Description
L-1.1	Maintain and prioritize Palo Alto's varied residential neighborhoods while sustaining the vitality of its commercial areas and public facilities.
L-1.3	Infill development in the urban service area should be compatible with its surroundings and the overall scale and character of the city to ensure a compact, efficient development pattern.
L-1.5	Regulate land uses in Palo Alto according to the land use definitions in this Element and Map L-6.
L-1.6	Encourage land uses that address the needs of the community and manage change and development to benefit the community.
L-1.7	Use coordinated area plans to guide development, such as to create or enhance cohesive neighborhoods in areas of Palo Alto where significant change is foreseeable. Address both land use and transportation, define the desired character and urban design traits of the areas, identify opportunities for public open space, parks and recreational opportunities, address connectivity to and compatibility with adjacent residential areas; and include broad community involvement in the planning process.
L-1.11	Hold new development to the highest development standards in order to maintain Palo Alto's livability and achieve the highest quality development with the least impacts.
L-2.1	Maintain a citywide structure of Residential Neighborhoods, Centers and Employment Districts. Integrate these areas with the City's and the region's transit and street system.
L-2.2	Enhance connections between commercial and mixed-use centers and the surrounding residential neighborhoods by promoting walkable and bikeable connections and a diverse range of retail and services that caters to the daily needs of residents.
L-2.4	Use a variety of strategies to stimulate housing, near retail, employment, and transit, in a way that connects to and enhances existing neighborhoods.
L-2.6	Create opportunities for new mixed-use development consisting of housing and retail.
L-2.8	When considering infill redevelopment, work to minimize displacement of existing residents.
L-2.9	Facilitate reuse of existing buildings.
L-3.1	Ensure that new or remodeled structures are compatible with the neighborhood and adjacent structures.

Policy	Description
L-4.2	Preserve ground-floor retail, limit the displacement of existing retail from neighborhood centers and explore opportunities to expand retail.
L-4.10.1	Prepare a coordinated area plan for the North Ventura area and surrounding California Avenue area. The plan should describe a vision for the future of the North Ventura area as a walkable neighborhood with multi-family housing, ground floor retail, a public park, creek improvements and an interconnected street grid. It should guide the development of the California Avenue area as a well-designed mixed use district with diverse land uses and a network of pedestrian-oriented streets.
L-6.1	Promote high-quality design and site planning that is compatible with surrounding development and public spaces.
L-6.2	Use the Zoning Ordinance, design review process, design guidelines and Coordinated Area Plans to ensure high quality residential and commercial design and architectural compatibility.
L-7.9	Allow compatible nonconforming uses for the life of historic buildings.

City of Palo Alto Municipal Code

Title 18, Zoning

Palo Alto's Zoning Ordinance serves to implement the proposed Plan land use designations by establishing comprehensive zoning regulations for the City. The Zoning Ordinance includes the zoning map, which establishes and delineates various districts within the incorporated territory of the city, and zoning regulations that apply development standards to the different zones delineated on the zoning map. The purpose of the Zoning Ordinance is to promote the general welfare of the people of Palo Alto; accomplish objectives, policies and programs from the Palo Alto Comprehensive Plan; and prevent land use conflicts. Additionally, the Zoning Ordinance contains the procedures that apply to the review of development projects in the city, including the Planning Commission's role in that process.

Chapter 18.76.020 of the Zoning Ordinance establishes Architectural Review procedures for "major" and "minor" projects in Palo Alto, excluding single-family and two-family homes. Through the architectural review process, projects are evaluated for their compatibility with their surroundings, harmonious transitions in scale and character between different land uses, safe and convenient access, integration of natural features, appropriate construction materials, and other aspects. Chapter 18.12 establishes similar review procedures for single-family homes with the goal of promoting new construction that is compatible with existing residential neighborhoods.

Chapter 19.10, Coordinated Area Plans

Chapter 19.10 establishes procedures for preparation of Coordinated Area Plans. A Coordinated Area Plan is very similar to a Specific Plan (California Government Code Sections 65450-65457). As a charter city, Palo Alto is exempt from these requirements, and so Chapter 19.10 adopts procedures and contents for plans that serve the same purpose. Coordinated Area Plans are a tool that Palo Alto uses to provide a visual linkage between policies and programs established in the Comprehensive Plan and specific development entitlements and public improvements. In part, the

purpose of this chapter is to create enhanced opportunities for building a sense of community through public involvement in planning processes, which are designed not only to satisfy constitutional due process requirements, but also to provide residents, business, and property owners with early, meaningful opportunities to help shape the physical components of their neighborhoods and community. Additionally, this chapter contains provisions relating to the contents of Coordinated Area Plans. Some of the required components of these plans include representation of the existing and proposed land uses, an implementation program, development standards, design requirements, a determination of economic feasibility, and proper environmental review. Once a Coordinated Area Plan is approved, all development within the Coordinated Area Plan Area must be consistent with the provisions of that Coordinated Area Plan.

3.9.1.2 *Existing Conditions*

The NVCAP area is made up of a mix of multi-family and single-family residential, office, and retail. Service commercial uses are concentrated along El Camino Real, Lambert Avenue, and the southern segment of Portage Avenue.

Existing land use designations within the NVCAP include Single Family Residential, Multi-Family Residential, Neighborhood Commercial, Service Commercial, Research/Office Park, and Light Industrial.

Parcels in the NVCAP are located in a range of zoning districts, as summarized in Table 2.2-1 in Section 2.0 Project Information and Description.

3.9.2 Impact Discussion

For the purpose of determining the significance of the project's impact on land use and planning, would the project:

1) Physically divide an established community?
2) 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?

3.9.2.1 *2030 Comprehensive Plan Update FEIR – Land Use and Planning Conclusions*

The 2030 Comprehensive Plan Update FEIR concluded that land use and planning impacts resulting from build out under the Comprehensive Plan would be less than significant with the implementation of Comprehensive Plan policies.

3.9.2.2 *Project Impacts*

a) Would the project physically divide an established community?

A physical division of an established community typically refers to the construction of a physical feature (such as a wall, roadway, or railroad tracks) or the removal of a means of access (such as a local roadway or bridge) that would impair mobility within an existing community or between communities.

Implementation of the NVCAP would allow up to an additional 530 residential units and approximately two acres of new public open space within the NVCAP area. While new commercial space is expected in the NVCAP area, there would be an overall net decrease in commercial space with the build out of the NVCAP to accommodate the new residential dwellings. As such, the NVCAP would result in a net reduction of up to 278,000 square feet of office and up to 7,500 square feet of retail.

One of the primary objectives of the NVCAP is to improve mobility through the NVCAP area through the creation and enhancement of well-defined connections to transit, pedestrian, and bicycle facilities. As discussed in Section 2.3.5, the NVCAP would convert Ash Street (southbound from Page Mill Road to Olive Avenue) to one-way. On Lambert Avenue, the existing vehicular travel lane would be narrowed, and on-street parking eliminated to create a wider pedestrian thoroughfare. Existing vehicular flow would be maintained on all other roadway segments. The NVCAP would also implement various intersection improvements (refer to Section 2.3.5 Circulation Improvements) and traffic calming measures. Streets within the NVCAP would be designed to create opportunities for a variety of travel options, with generous and active sidewalks and new Class IV and II bicycle facilities. As a result, implementation of the NVCAP would not divide an established community. **[Less Impact Than Approved Project (Less than Significant Impact)]**

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?

The NVCAP is being prepared in accordance with the 2030 Comprehensive Plan Policy L-1.7 and Program L-4.10, which specifically calls for the preparation of a plan for the North Ventura and surrounding California Avenue area in order to establish the future of the North Ventura area as a walkable neighborhood with multi-family housing, ground-floor retail, a public park, creek improvements, and an interconnected street grid. The proposed NVCAP furthers goals and policies set forth in the Comprehensive Plan such as goals to reduce vehicle miles traveled (policy T-1.3), to facilitate the development of additional public park/open space (Policy L-8.1), and to improve multi-modal connections (L-2.2).

The NVCAP would create new land use classifications for parcels within the NVCAP (refer to Section 2.3.1 of this SEIR) that would allow up to an additional 530 residential units and approximately two

acres of new public open space within the NVCAP area. The NVCAP would result in a net reduction of up to 278,000 square feet of office and up to 7,500 square feet of retail. The NVCAP would also create new zoning districts and standards (refer to Table 2.3-2) to facilitate redevelopment within the NVCAP. The lawful use of buildings existing prior to the adoption of the proposed NVCAP may continue as though the prior zoning of the parcel remained in place consistent with PAMC 18.70, until such time as the existing use (including any expansions) has been discontinued in its entirety, at which time the prior zoning shall become inapplicable and the proposed NVCAP shall apply from that point forward.

Consistent with the City's Architectural Review procedures, future redevelopment projects under the NVCAP would be evaluated for their compatibility with their surroundings, harmonious transitions in scale and character between different land uses, safe and convenient access, integration of natural features, appropriate construction materials, and other aspects. For these reasons, the NVCAP would not result in a significant impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. **[Same Impact as Approved Project (Less than Significant Impact)]**

3.9.2.3 *Cumulative Impacts*

Would the project result in a cumulatively considerable contribution to a cumulatively significant land use and planning impact?

The geographic area for cumulative land use impacts is the City of Palo Alto.

Land uses in the City are regulated by the Comprehensive Plan. The 2030 Comprehensive Plan Update FEIR concluded that build out of the Comprehensive Plan in accordance with its policies and programs, along with mitigation measures, would be less than significant. Future redevelopment under the NVCAP, in combination with cumulative projects, would continue to be subject to the policies and programs of the Comprehensive Plan, along with the PAMC. For these reasons, the project would not result in a significant cumulative land use impact. **[Same Impact as Approved Project (Less than Significant Cumulative Impact)]**

3.10 Noise

3.10.1 Environmental Setting

3.10.1.1 *Background Information*

Noise

Factors that influence sound as it is perceived by the human ear, include the actual level of sound, period of exposure, frequencies involved, and fluctuation in the noise level during exposure. Noise is measured on a decibel scale, which serves as an index of loudness. The zero on the decibel scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Each 10 decibel increase in sound level is perceived as approximately a doubling of loudness. Because the human ear cannot hear all pitches or frequencies, sound levels are frequently adjusted or weighted to correspond to human hearing. This adjusted unit is known as the A-weighted decibel, or dBA.

Since excessive noise levels can adversely affect human activities and human health, federal, state, and local governmental agencies have set forth criteria or planning goals to minimize or avoid these effects. Noise guidelines are generally expressed using one of several noise averaging methods, including L_{eq}, DNL, or CNEL.[86] These descriptors are used to measure a location's overall noise exposure, given that there are times when noise levels are higher (e.g., when a jet is taking off from an airport or when a leaf blower is operating) and times when noise levels are lower (e.g., during lulls in traffic flows on freeways or in the middle of the night). L_{max} is the maximum A-weighted noise level during a measurement period.

Vibration

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Vibration amplitude can be quantified using Peak Particle Velocity (PPV), which is defined as the maximum instantaneous positive or negative peak of the vibration wave. PPV has been routinely used to measure and assess ground-borne construction vibration. Studies have shown that the threshold of perception for average persons is in the range of 0.008 to 0.012 inches/second (in/sec) PPV.

[86] L_{eq} is a measurement of average energy level intensity of noise over a given period. Day-Night Level (DNL) is a 24-hour average of noise levels, with a 10 dB penalty applied to noise occurring between 10:00 PM and 7:00 AM. Community Noise Equivalent Level (CNEL) includes an additional five dB applied to noise occurring between 7:00 PM and 10:00 PM. Where traffic noise predominates, the CNEL and DNL are typically within two dBA of the peak-hour L_{eq}.

3.10.1.2 *Regulatory Framework*

State

California Department of Transportation

The California Department of Transportation recommends a vibration limit of 0.5 in/sec PPV for buildings structurally sound and designed to modern engineering standards, which typically consist of buildings constructed since the 1990s. Conservative vibration limits of 0.3 in/sec PPV has been used for buildings that are found to be structurally sound but where structural damage is a major concern. For historical buildings or buildings that are documented to be structurally weakened, a cautious limit of 0.25 in/sec PPV is often used to provide the highest level of protection. Vibrations of 0.5 PPV in/sec or greater would generate unpleasant vibrations to humans.

California Building Standards Code

The CBC establishes uniform minimum noise insulation performance standards to protect persons within new buildings housing people, including hotels, motels, dormitories, apartments, and dwellings other than single-family residences. Title 24 mandates that interior noise levels attributable to exterior sources do not exceed 45 L_{dn}/CNEL in any habitable room. Exterior windows must have a minimum Sound Transmission Class (STC) of 40 or Outdoor-Indoor Transmission Class (OITC) of 30 when the property falls within the 65 dBA DNL noise contour for a freeway or expressway, railroad, or industrial source.

California Green Building Standards Code

For commercial uses, CalGreen (Section 5.507.4.1 and 5.507.4.2) requires that wall and roof-ceiling assemblies exposed to the adjacent roadways have a composite STC rating of at least 50 or a composite OITC rating of no less than 40, with exterior windows of a minimum STC of 40 or OITC of 30 when the commercial property falls within the 65 dBA L_{dn} or greater noise contour for a freeway or expressway, railroad, or industrial or stationary noise source. The state requires interior noise levels to be maintained at 50 dBA $L_{eq(1\text{-}hr)}$ or less during hours of operation at a proposed commercial use.

Local

2030 Comprehensive Plan

The 2030 Comprehensive Plan includes noise compatibility guidelines for various land uses. For reference, these guidelines are provided in Table 3.10-1 below.

Table 3.10-1: Comprehensive Plan Land Use Computability for Community Noise Environment

	Exterior Noise Exposure L_{dn} or CNEL or dB		
Land Use Category	**Normally Acceptable**	**Conditionally Acceptable**	**Unacceptable**
Residential, Hotels, and Motels	50-60	60-75	75+
Outdoors Sports and Recreation, Neighborhood Parks and Playgrounds	50-65	65-80	80+
Schools, Libraries, Museums, Hospitals, Personal Care, Meeting Halls, Churches	50-60	60-75	75+
Office Buildings, Business Commercial, and Professional	50-70	70-80	80+
Auditoriums, Concert Halls, and Amphitheaters	N/A	50-75	75+
Industrial, Manufacturing, Utilities, and Agriculture	50-70	75+	N/A
Source: City of Palo Alto. 2030 Comprehensive Plan. Table N-1.			

In addition, the following policies in the City's Comprehensive Plan have been adopted for the purpose of reducing or avoiding impacts related to noise and are applicable to the project.

Policy	Description
N-6.1	Encourage the location of land uses in areas with compatible noise environments. Use the guidelines in Table N-1 (refer to Table 3.10-1 above) to evaluate the compatibility of proposed land uses with existing noise environments when preparing, revising, or reviewing development proposals. Acceptable exterior, interior and ways to discern noise exposure include: • The guideline for maximum outdoor noise levels in residential areas is an Ldn of 60 dB. This level is a guideline for the design and location of future development and a goal for the reduction of noise in existing development. However, 60 Ldn is a guideline which cannot necessarily be reached in all residential areas within the constraints of economic or aesthetic feasibility. This guideline will be primarily applied where outdoor use is a major consideration (e.g., backyards in single-family housing developments, and recreational areas in multiple family housing projects). Where the City determines that providing an Ldn of 60 dB or lower outdoors is not feasible, the noise level in outdoor areas intended for recreational use should be reduced to as close to the standard as feasible through project design. • Interior noise, per the requirements of the State of California Building Standards Code (Title 24) and Noise Insulation Standards (Title 25), must not exceed an Ldn of 45 dB in all habitable rooms of all new dwelling units.
N-6.2	Noise exposure(s) can be determined from (a) the noise contour map included in this plan, (b) more detailed noise exposure studies, or (c) on area-specific or project-specific noise measurements, as appropriate.
N-6.3	Protect the overall community and especially sensitive noise receptors, including schools, hospitals, convalescent homes, senior and child care facilities and public conservation land

Policy	Description
	from unacceptable noise levels from both existing and future noise sources, including construction noise.
N-6.5	Protect residential and residentially-zoned properties from excessive and unnecessary noise from any sources on adjacent commercial or industrial properties.
N-6.6	Apply site planning and architectural design techniques that reduce overall noise pollution and reduce noise impacts on proposed and existing projects within Palo Alto and surrounding communities.
N-6.7	While a proposed project is in the development review process, the noise impact of the project on existing residential land uses, public open spaces and public conservation land should be evaluated in terms of the increase in existing noise levels for the potential for adverse community impact, regardless of existing background noise levels. If an area is below the applicable maximum noise guideline, an increase in noise up to the maximum should not necessarily be allowed.
N-6.8	The City may require measures to reduce noise impacts of new development on adjacent properties through appropriate means including, but not limited to, the following: • Orient buildings to shield noise sensitive outdoor spaces from sources of noise. • Construct noise walls when other methods to reduce noise are not practical and when these walls will not shift similar noise impacts to another adjacent property. • Screen and control noise sources such as parking lots, outdoor activities and mechanical equipment, including HVAC equipment. • Increase setbacks to serve as a buffer between noise sources and adjacent dwellings. • Whenever possible, retain fences, walls or landscaping that serve as noise buffers while considering design, safety and other impacts. • Use soundproofing materials, noise reduction construction techniques, and/or acoustically rated windows/doors. • Include auxiliary power sources at loading docks to minimize truck engine idling. • Control hours of operation, including deliveries and trash pickup, to minimize noise impacts.
N-6.9	Continue to require applicants for new projects or new mechanical equipment in the Multifamily, Commercial, Manufacturing or Planned Community districts to submit an acoustical analysis demonstrating compliance with the Noise Ordinance prior to receiving a building permit.
N-6.10	Continue to prioritize construction noise limits around sensitive receptors, including through limiting construction hours and individual and cumulative noise from construction equipment.
N-6.11.1	For larger development projects that demand intensive construction periods and/or use equipment that could create vibration impacts, such as the Stanford University Medical Center or major grade separation projects, require a vibration impact analysis, as well as formal, ongoing monitoring and reporting of noise levels throughout the entire construction process pertinent to industry standards. The monitoring plan should identify hours of operation and could include information on the monitoring locations, durations and regularity, the instrumentation to be used and appropriate noise control measures to ensure compliance with the noise ordinance.
N-6.12	Ensure compliance with the airport related land use compatibility standards for community noise environments, shown in Table N-1, by prohibiting incompatible land use development within the 60 dBA CNEL noise contours of the Palo Alto airport.
N-6.13	Minimize noise spillover from rail related activities into adjacent residential or noise-sensitive areas.

Policy	Description
N-6.14	Reduce impacts from noise and ground borne vibrations associated with rail operations by requiring that future habitable buildings use necessary design elements such as setbacks, landscaped berms and soundwalls to keep interior noise levels below 45 dBA Ldn and ground-borne vibration levels below 72 VdB.

City of Palo Alto Municipal Code

The PAMC primarily regulates noise through the Noise Ordinance, which comprises Chapter 9.10 of the Code. Section 9.10.030 of the PAMC states the following for residential property noise limits:

a) No person shall produce, suffer or allow to be produced by any machine, animal or device, or any combination of same, on residential property, a noise level more than six dB above the local ambient at any point outside of the property plane.
b) No person shall produce, suffer or allow to be produced by any machine, animal, or device, or any combination of same, on multi-family residential property, a noise level more than six dBA above the local ambient three feet from any wall, floor, or ceiling inside any dwelling unit on the same property, when the windows and doors of the dwelling unit are closed, except within the dwelling unit in which the noise source or sources may be located.

For commercial and industrial property noise limits, Section 9.10.040 of the PAMC states that no person shall produce, suffer or allow to be produced by any machine or device, or any combination of same, on commercial or industrial property, a noise level more than eight dBA above the local ambient at any point outside of the property plane. Section 9.10.060 of the PAMC restricts construction activities to the hours of 8:00 a.m. to 6:00 p.m., Monday through Friday, and 9:00 a.m. to 6:00 p.m. on Saturday.

Construction is prohibited on Sundays and holidays (New Year's Day, Martin Luther King Day, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veteran's Day, Thanksgiving Day, and Christmas Day). Construction, demolition, or repair activities must meet the following standards:

- No individual piece of equipment shall produce a noise level exceeding 110 dBA at a distance of 25 feet. If the device is housed in a structure on the property, the measurement shall be made outside the structure at a distance as close to 25 feet from the equipment as possible.
- The noise level at any point outside of the property plane of the project shall not exceed 110 dBA.
- The holder of a valid construction permit for a construction project in a non-residential zone shall post a sign at all entrances to the construction site upon commencement of construction, for the purpose of informing all contractors and subcontractors, their employees, agents, materialmen and all other persons at the construction site, of the basic requirements of this chapter.

3.10.1.3 *Existing Conditions*

The NVCAP area is a 60-acre area roughly bounded by Oregon Expressway/Page Mill Road to the west, El Camino Real to the south, Lambert Avenue to the east, and the Caltrain rail corridor to the north. The predominant noise sources within the vicinity of the NVCAP area include vehicular traffic on nearby high-volume roadways (refer to Figure 3.2-1) and train passbys along the Caltrain rail corridor.

As shown in Figure 3.10-1, portions of the NVCAP area that are immediately adjacent to Oregon Expressway/Page Mill Road, El Camino Real, and the Caltrain rail corridor experience noise levels up to 70 dBA CNEL. The interior portions of the NVCAP area experience noise levels of 65 dBA CNEL or less. No portion of the NVCAP area experiences noise levels of 75 dBA CNEL or greater.

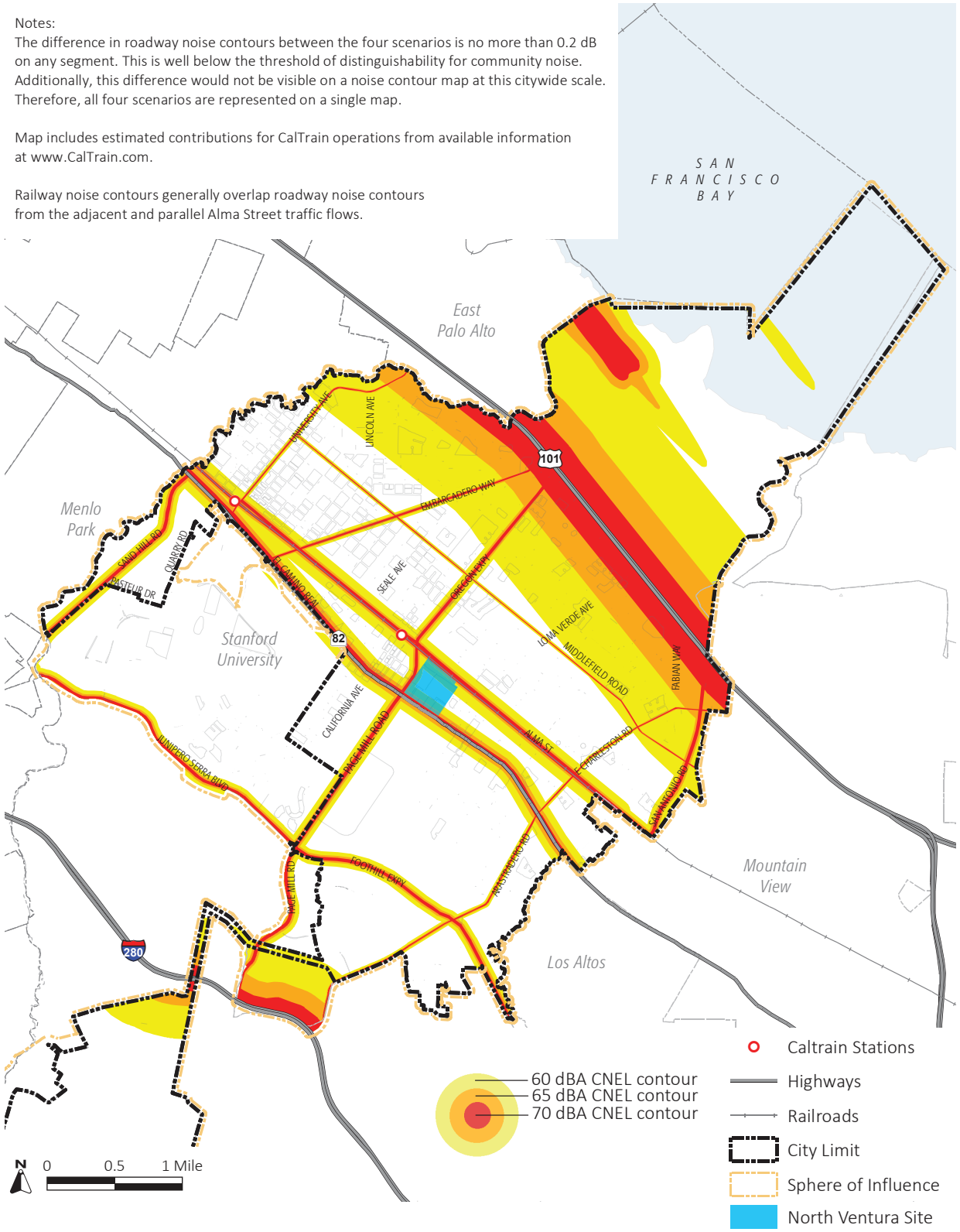
The nearest noise-sensitive receptors (which the Comprehensive Plan defines as residences, schools, hospitals, convalescent homes, senior and childcare facilities, and public conservation land) include single- and multi-family residences located within the NVCAP area. Outside of the NVCAP area, the nearest sensitive receptors are the multi-family units located along Oregon Expressway and Park Boulevard opposite the NVCAP area, and the single-family units located opposite the NVCAP area along Lambert Avenue.

The NVCAP area is not located within an airport land use plan (and by extension, is not located in any identified airport noise contours) or within two miles of a public airport. The nearest airport is Palo Alto Airport, located approximately 2.4 miles northeast of the NVCAP area.

Notes:
The difference in roadway noise contours between the four scenarios is no more than 0.2 dB on any segment. This is well below the threshold of distinguishability for community noise. Additionally, this difference would not be visible on a noise contour map at this citywide scale. Therefore, all four scenarios are represented on a single map.

Map includes estimated contributions for CalTrain operations from available information at www.CalTrain.com.

Railway noise contours generally overlap roadway noise contours from the adjacent and parallel Alma Street traffic flows.



PALO ALTO FUTURE NOISE CONTOURS | FIGURE 3.10-1

3.10.2 Impact Discussion

For the purpose of determining the significance of the project's impact on noise, would the project result in:

1) 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?
2) Generation of excessive groundborne vibration or groundborne noise levels?
3) 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?

3.10.2.1 *Thresholds of Significance*

The 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 will 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. As discussed in CEQA Guidelines Section 15064(b), the determination of whether a project may have a significant effect on the environment calls for judgment on the part of the lead agency and must be based to the extent possible on scientific and factual data. For the purposes of this analysis, the City of Palo Alto relies on the following as CEQA thresholds of significance:

- Construction Noise – Pursuant to PAMC Section 9.10.060, construction activities that would occur outside the permitted hours of construction (weekdays between 8:00 a.m. and 6:00 p.m., Saturdays between 9:00 a.m. and 6:00 p.m.) or would generate noise exceeding 110 dBA at a distance of 25 feet or beyond the property plane would have a significant construction-related noise impact.
- Operational Noise – A significant operational-related noise impact would occur if build out of the NVCAP would result in a permanent noise increase of three dBA L_{dn} or greater. Pursuant to PAMC Section 9.10.30 and Section 9.10.40, noise levels in excess of six dB above the local ambient at the property plane of residences or eight dB at the plane of commercial and industrial properties would be considered significant.
- Construction Vibration: Consistent with the recommendations of the California Department of Transportation, build out under the NVCAP would be considered to have a significant construction-related vibration impact if vibration generated during construction exceeds 0.3 in/sec PPV at buildings of normal conventional construction or 0.25 in/sec PPV at historical buildings.
- Excessive Noise Level Exposure: The NVCAP would have a significant noise impact related to airport operations if construction workers and future residents would be exposed to noise levels in excess of the standards identified in Table 3.10-1.

3.10.2.2 *2030 Comprehensive Plan Update FEIR – Noise Conclusions*

The 2030 Comprehensive Plan Update FEIR concluded that build out under the Comprehensive Plan (with mitigation incorporated) would result in less than significant noise and vibration impacts.

3.10.2.3 *Project 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 Noise

Noise impacts resulting from construction depend on the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, the distance between construction noise sources and noise-sensitive receptors, any shielding provided by intervening structures or terrain, and ambient noise levels. Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (early morning, evening, or nighttime hours), when construction occurs in areas immediately adjoining noise-sensitive land uses, or when construction durations last over extended periods of time.

Each construction phase would include a different mix of equipment in operation at any one time. The highest noise levels are typically generated when impact tools are used (e.g., jackhammers, hoe rams). Site grading and excavation activities would also generate high noise levels, as these phases often require the simultaneous use of multiple pieces of heavy equipment (e.g., dozers, excavators, scrapers, loaders). Pile driving activities are during foundation work and would generate loud noise levels. Lower noise levels result from construction activities when less heavy equipment is required to complete the tasks or construction activities move indoors. Typical construction levels at 50 feet are presented in Table 3.10-2. Most demolition and construction noise falls in the range of 80 to 90 dBA at 50 feet from the source. Construction-generated noise levels drop off/increase at a rate of about six dBA per doubling/halving of the distance between the source and receptor. Shielding by buildings or terrain can provide an additional five to 10 dBA noise reduction at distant receptors.

Table 3.10-2: Typical Ranges of Construction Noise at 50 Feet L_{eq} (dBA)

Construction Activity	Domestic Housing		Office Building, Hotel, Hospital, School, Public Works		Industrial Parking Garage, Religious Amusement & Recreations, Store, Service Station		Public Works Roads & Highways, Sewers, and Trenches	
	I	II	I	II	I	II	I	II
Ground Clearing	83	83	84	84	84	83	84	84
Excavation	88	75	89	79	89	71	88	78
Foundations	81	81	78	78	77	77	88	88
Erection	81	65	87	75	84	72	79	78
Finishing	88	72	89	75	89	74	84	84

Source: U.S. Environmental Protection Agency. *Legal Compilation on Noise*. 1973.

Notes:

I – All pertinent equipment present at site.

II – Minimum required equipment present at site.

The typical construction noise levels shown in Table 3.10-2 are representative of noise levels at 50 feet; as discussed above, a halving of the distance between the source and receptor results in an increase of approximately six dBA. At 25 feet, the typical construction noise levels during build out of future development under the NVCAP would be at their highest during the excavation and finishing phases of construction, when noise levels would typically peak at 95 dBA. This would be well below the City's 110 dBA threshold of significance. Accordingly, construction under the NVCAP would not result in the generation of a substantial temporary increase in ambient noise levels. Further, Comprehensive Plan policies N-6.7 and N-6.9 require new development projects to prepare a site-specific acoustical analysis demonstrating compliance with the City's Noise Ordinance (Chapter 9.10 of the PAMC), including those provisions regarding construction noise limits outside the property plane of future development sites within the NVCAP, prior to the issuance of building permits. For these reasons, construction activities because of the NVCAP would not result in the generation of a substantial temporary increase in ambient noise levels.

Operational Noise

Traffic Noise Increases

Increases in traffic noise gradually degrade the environment in areas sensitive to noise. According to CEQA, "a substantial increase" is necessary to cause a significant environmental impact. Consistent with the 2030 Comprehensive Plan Update FEIR, a substantial traffic noise increase would occur if build out of the NVCAP would result in a permanent noise increase of three dBA L_{dn} or greater. For reference, a three dBA noise increase would be expected if the project would double existing daily traffic volumes along a roadway.

Build out of the NVCAP would have the greatest increase in traffic volumes along Oregon Expressway/Page Mill Road and El Camino Real, high-volume roadways with more than 10,000 vehicle trips per day (refer to Figure 3.2-1). The Traffic Technical Memo prepared for the NVCAP (refer to Appendix F) determined that in comparison with existing conditions, the project would increase traffic volumes by 1,459 daily trips, well below the number of trips (>10,000) required to double traffic volumes along these roadways. Increases in traffic volumes on interior roadways within the NVCAP area would be substantially less due to the diffusion of trips across the entire NVCAP area and would not result in a doubling of any daily traffic volumes along any roadways. Accordingly, traffic generated by build out of the NVCAP would not result in the generation of a substantial permanent increase in ambient noise levels.

Mechanical Equipment

Future development under the NVCAP is anticipated to include a variety of noise-generating mechanical equipment, including generators, transformers, and heating, ventilation and air conditioning (HVAC) systems. Given that the NVCAP does not propose or approve any specific development, noise generated by future mechanical equipment at the property plane of existing residential, commercial, and industrial land uses cannot be quantified at this time, since it is dependent on the distance between the noise source and receptor, attenuation provided by project design, and other project-specific factors.

Based on the existing noise environment, the typical noise levels produced by these types of equipment, and the attenuation typically provided by distance and the building envelope, noise generated by future mechanical equipment is not anticipated to exceed the six dB or eight dB threshold at the property plane of nearby residential and non-residential land uses, respectively. Further, Comprehensive Plan policies N-6.7 and N-6.9 require new development projects to prepare a site-specific acoustical analysis demonstrating compliance with the City's Noise Ordinance (Chapter 9.10 of the PAMC), including those provisions regarding permanent noise increases associated with mechanical equipment, prior to the issuance of building permits. Comprehensive Plan Policy N-6.8 also requires new development to include design measures that reduce noise impacts from new development on existing receptors, including building orientation and setbacks, installation of noise barriers, and use of soundproofing materials. Adherence with the aforementioned Comprehensive Plan policies would ensure that the NVCAP would not result in the generation of a permanent increase in ambient noise levels associated with the operation of mechanical equipment. **[Same Impact as Approved Project (Less than Significant Impact)]**

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

Construction equipment, especially pile drivers, are known to generate substantial vibration levels that may expose persons to excessive vibration levels and/or cause cosmetic or worse damage to buildings. The severity of the vibration impact is determined based on the proximity of the proposed activities to buildings and receptors. The sensitivity of potentially affected buildings is also an important factor in evaluating impacts due to groundborne vibration.

The California Department of Transportation recommends a vibration limit of 0.5 in/sec PPV to avoid damage to buildings that are structurally sound and designed to modern engineering standards, a vibration limit of 0.3 in/sec PPV for buildings that are found to be structurally sound but where structural damage is a major concern, and a vibration limit of 0.25 in/sec PPV for historic and certain older structures. Table 3.10-3 below presents typical vibration levels that could be expected from construction equipment at distances of 25 feet to 100 feet. Vibration levels would be higher at distances less than 25 feet and lower at distances greater than 100 feet. Vibration levels would also vary depending on soil conditions, construction methods, and equipment used. Vibration levels are highest close to the source, and then attenuate with increasing distance .

Table 3.10-3: Vibration Source Levels for Construction Equipment

Equipment		PPV at 25 ft. (in/sec)	PPV at 50 ft. (in/sec)	PPV at 100 ft. (in/sec)
Pile Driver (Impact)	upper range	1.158	0.540	0.252
	typical	0.644	0.300	0.140
Pile Driver (Sonic)	upper range	0.734	0.342	0.160
	typical	0.170	0.079	0.037
Clam shovel drop		0.202	0.094	0.044
Hydromill (slurry wall)	in soil	0.008	0.004	0.002
	in rock	0.017	0.008	0.004
Vibratory Roller		0.210	0.098	0.046
Hoe Ram		0.089	0.042	0.019
Large bulldozer		0.089	0.042	0.019
Caisson drilling		0.089	0.042	0.019
Loaded trucks		0.076	0.035	0.017
Jackhammer		0.035	0.016	0.008
Small bulldozer		0.003	0.001	0.001

Source: United States Department of Transportation, Office of Planning and Environment, Federal Transit Administration. *Transit Noise and Vibration Impact Assessment*. September 2018.

Table 3.10-4 summarizes the minimum safe setback distances to maintain in order to achieve the 0.25 in/sec PPV threshold for historical buildings and the 0.3 in/sec and 0.5 in/sec PPV thresholds for modern buildings.

Table 3.10-4: Minimum Safe Setbacks for Vibration-Generating Construction Activities

Equipment		Minimum Safe Setback (feet) 0.25 in/sec PPV	Minimum Safe Setback (feet) 0.30 in/sec PPV	Minimum Safe Setback (feet) 0.50 in/sec PPV
Pile Driver (Impact)	upper range	101	86	54
	typical	60	51	32
Pile Driver (Sonic)	upper range	67	57	36
	typical	18	15	10
Clam shovel drop		21	18	11
Hydromill (slurry wall)	in soil	<1	<1	2
	in rock	3	2	12
Vibratory Roller		22	19	12
Hoe Ram		10	9	6
Large bulldozer		10	9	6
Caisson drilling		10	9	6
Loaded trucks		9	8	5
Jackhammer		5	4	3
Small bulldozer		<1	<1	<1

Source: United States Department of Transportation, Office of Planning and Environment, Federal Transit Administration. *Transit Noise and Vibration Impact Assessment*. September 2018.

Construction details for future development under the NVCAP are not currently known and, therefore, vibration levels cannot be quantified. While it is likely that the construction areas associated with these future developments could be located beyond the minimum safe setback distances identified in Table 3.10-4, construction activity under the NVCAP could result in vibration levels more than Caltrans' and the City's thresholds of significance. Comprehensive Plan Policy N-6.11.1 would require future development under the NVCAP that proposes the use of equipment that could result in vibration impacts to prepare a vibration impact analysis.

Impact NOI-1: Construction activities associated with build out of the NVCAP could generate groundborne vibration capable of causing cosmetic or worse building damage or adversely affecting nearby sensitive receptors.

Mitigation Measures: The following mitigation measure is prescribed in accordance with the requirements of the Comprehensive Plan.

MM NOI-1.1: Applicants for projects within the North Ventura Coordinated Area Plan area shall obtain a groundborne vibration study prior to the issuance of any discretionary permits that would allow the use of construction equipment within 22 feet or pile driving within 101 feet of existing structures. The study

shall be prepared by a qualified professional in accordance with industry-accepted methodology, which include the recommended vibration assessment procedure and thresholds provided by public agencies such as Caltrans and the Federal Highway Administration. The study should identify necessary construction vibration controls to reduce both human annoyance and the possibility of cosmetic damage. Controls shall include, but not be limited to, the following measures:

- A list of all heavy construction equipment to be used for this project known to produce high vibration levels (tracked vehicles, vibratory compaction, jackhammers, hoe rams, etc.) shall be submitted to the City by the contractor. This list shall be used to identify equipment and activities that would potentially generate substantial vibration and to define the level of effort for reducing vibration levels below the thresholds.
- Place operating equipment on the construction site as far as possible from vibration-sensitive receptors.
- Use smaller equipment to minimize vibration levels below the limits.
- Avoid using vibratory rollers and tampers near sensitive areas.
- Select demolition methods not involving impact tools.
- Modify/design or identify alternative construction methods to reduce vibration levels below the limits.
- Avoid dropping heavy objects or materials.

MM NOI-1.1 would ensure that prior to the use of substantial vibration-generating construction equipment, vibration impact analyses are prepared that identify potential impacts and prescribed methods, such as those described in the measure, as warranted, to reduce potential impacts to a less than significant level. Consistent with the findings of the 2030 Comprehensive Plan Update FEIR, which concluded that preparation of vibration impact analyses prior to the use of construction equipment that could create vibration impacts would result in less than significant impacts, build out of the NVCAP would not generate excessive groundborne vibration or groundborne noise levels. **[Same Impact as Approved Project (Less than Significant Impact with Mitigation Incorporated)]**

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?

As discussed in Section 3.10.1.3, the NVCAP area is not located within an airport land use plan (and by extension, is not located in any identified airport noise contours) or within two miles of a public airport. Accordingly, future residents and workers in the NVCAP area would not be exposed to

excessive noise associated with airport operations or aircraft. **[Same Impact as Approved Project (Less than Significant Impact)]**

3.10.2.4 *Cumulative Impacts*

Would the project result in a cumulatively considerable contribution to a cumulatively significant noise impact?

Temporary and Permanent Increases in Ambient Noise Levels

The geographic area for cumulative noise impacts is the NVCAP area and adjacent parcels and roadways, where build out of future development could contribute traffic or noise at a perceptible level.

As discussed under checklist question a), the NVCAP does not propose or approve any specific development and, therefore temporary and permanent increases in ambient noise levels associated with specific development proposal cannot be quantified. All future development would, however, be required to prepare a site-specific acoustical analysis prior to issuance of building permits that would evaluate their individual contribution to the existing noise environment at the time of proposal (i.e., the cumulative scenario), and mitigate as warranted. As a result, the cumulative impact is also reduced to a less than significant level.

The discussion under checklist question a) also analyzed the impact of traffic volume and noise increases associated with build out of the NVCAP on interior and adjacent roadways and found the NVCAP's individual impact to be less than significant. The 2030 Comprehensive Plan Update FEIR considered the impact of redeveloping the NVCAP area in accordance with Comprehensive Plan Policy L-1.7 and Program L-4.10, which called for the preparation of a plan to redevelop the NVCAP area as a walkable neighborhood with multi-family housing, ground-floor retail, a public park, creek improvements, and an interconnected street grid, and found the cumulative impacts on traffic noise levels to be less than significant. Accordingly, given that the NVCAP would not individually result in a substantial temporary or permanent noise increase, on a cumulative level the NVCAP would not result in a cumulatively considerable contribution to a permanent noise increase.

Generation of Groundborne Vibration and Noise

As discussed above, the NVCAP does not propose or approve any specific development, and therefore vibration levels associated with specific development proposal cannot be quantified. Cumulative development within and adjacent to the NVCAP area would be required by MM NOI-1.1 and Comprehensive Plan Policy N-6.11.1, respectively, to prepare groundborne vibration studies prior to the use of construction equipment that could create vibration impacts. Consistent with the findings of the 2030 Cumulative Plan FEIR, adherence to MM NOI-1.1 and Comprehensive Plan Policy N-6.11.1 would ensure that the NVCAP would not result in a cumulatively considerable groundborne vibration or noise impact.

Airport Noise Hazards

As discussed under checklist question c), the NVCAP would not expose any people residing or working within the NVCAP area to excessive noise levels. The NVCAP would not construct a new airport. Therefore, the project would not contribute to a cumulatively considerable impact.

As discussed above, build out of the NVCAP would have a less than significant cumulative noise impact. **[Same Impact as Approved Project (Less than Significant Cumulative Impact with Mitigation Incorporated)]**

3.10.3 Non-CEQA Effects

Per *California Building Industry Association v. Bay Area Air Quality Management District,* 62 Cal. 4th 369 *(BIA v. BAAQMD)*, effects of the environment on the project are not considered CEQA impacts. The following discussion is included for informational purposes only because the City of Palo Alto has policies (refer to Section 3.10.1.3) that address existing noise conditions affecting a proposed project.

As shown on Figure 3.10-1, future sensitive receptors (i.e., residences) introduced to the NVCAP area would be exposed to noise levels no greater than 70 dBA CNEL. Noise levels below 70 dBA CNEL are considered conditionally acceptable, provided that future developments complete an acoustical analysis prior to issuance of building permits that demonstrates residents would not be exposed to interior noise levels in excess of Title 24 of the CBC or exterior noise levels in excess of what is conditionally permitted pursuant to the City's Comprehensive Plan (75 dBA CNEL). Accordingly, the NVCAP would not result in the exposure of future sensitive receptors to excessive noise levels.

3.11 Transportation

The following discussion is based, in part, on a VMT Analysis and a Traffic Technical Memo prepared by ARUP. The reports, dated May 16, 2023 and December 12, 2023, are attached to this SEIR as Appendix E and Appendix F, respectively.

3.11.1 Environmental Setting

3.11.1.1 *Regulatory Framework*

Regional Transportation Plan

MTC is the transportation planning, coordinating, and financing agency for the nine-county San Francisco Bay Area, including Santa Clara County. MTC is charged with regularly updating the Regional Transportation Plan, a comprehensive blueprint for the development of mass transit, highway, airport, seaport, railroad, bicycle, and pedestrian facilities in the region. MTC and ABAG adopted Plan Bay Area 2050 in October 2021, which includes a Regional Transportation Plan to guide regional transportation investment for revenues from federal, state, regional and local sources through 2050.

Senate Bill 743 (2013)

SB 743 establishes criteria for determining the significance of transportation impacts using a VMT metric intended to promote the reduction of GHG emissions, the development of multimodal transportation networks, and a diversity of land uses. Specifically, SB 743 requires analysis of VMT in determining the significance of transportation impacts. Local jurisdictions were required by the Governor's Office of Planning and Research (OPR) to implement a VMT policy by July 1, 2020.

SB 743 did not authorize OPR to set specific VMT impact thresholds, but it did direct OPR to develop guidelines for jurisdictions to utilize. CEQA Guidelines Section 15064.3(b)(1) describes factors that might indicate whether a development project's VMT may be significant. Notably, projects located within 0.50 mile of transit should be considered to have a less than significant transportation impact based on OPR guidance.

Regional and Local

Congestion Management Program

VTA oversees the Congestion Management Program (CMP), which is aimed at reducing regional traffic congestion. The relevant state legislation requires that urbanized counties in California prepare a CMP to obtain each county's share of gas tax revenues. State legislation requires that each CMP define traffic LOS standards, transit service standards, a trip reduction and transportation demand management plan, a land use impact analysis program, and a capital improvement element. VTA has review responsibility for proposed development projects that are expected to affect CMP-designated intersections.

2030 Comprehensive Plan

The following policies in the City's Comprehensive Plan have been adopted for the purpose of reducing or avoiding impacts related to transportation and are applicable to the project.

Policy	Description
T-1.1	Take a comprehensive approach to reducing single-occupant vehicle trips by involving those who live, work and shop in Palo Alto in developing strategies that make it easier and more convenient not to drive.
T-1.2	Collaborate with Palo Alto employers and business owners to develop, implement and expand comprehensive programs like the TMA to reduce single-occupant vehicle commute trips, including through incentives.
T-1.3	Reduce GHG and pollutant emissions associated with transportation by reducing VMT and per-mile emissions through increasing transit options, supporting biking and walking, and the use of zero-emission vehicle technologies to meet City and State goals for GHG reductions by 2030.
T-1.4	Ensure that electric vehicle charging infrastructure, including infrastructure for charging e-bikes, is available citywide.
T-1.5	Support the introduction of autonomous, shared, clean motor vehicles with the goals of improving roadway safety (especially for vulnerable road users), improving traffic operations, supporting core mass transit routes, reducing air pollution and GHG emissions, enhancing transportation opportunities for the disadvantaged and reclaiming valuable land dedicated to motor vehicle transportation and parking.
T-1.6	Encourage innovation and expanded transit access to regional destinations, multi-modal transit stations, employment centers and commercial centers, including those within Palo Alto through the use of efficient public and/or private transit options such as rideshare services, on-demand local shuttles and other first/last mile connections.
T-1.13	Encourage services that complement and enhance the transportation options available to help Palo Alto residents and employees make first/last mile connections and travel within the city for daily needs without using a single-occupancy vehicle, including shuttle, taxi and ridesharing services.
T-1.15	Encourage employers to develop shared shuttle services to connect employment areas with the multi-modal transit stations and City amenities, and to offer employees education and information on how to use shuttles.
T-1.16	Promote personal transportation vehicles an alternative to cars (e.g. bicycles, skateboards, roller blades) to get to work, school, shopping, recreational facilities and transit stops.
T-1.17	Require new office, commercial and multi-family residential developments to provide improvements that improve bicycle and pedestrian connectivity as called for in the 2012 Palo Alto Bicycle + Pedestrian Transportation Plan.]
T-1.19	Provide facilities that encourage and support bicycling and walking.
T-1.21	Maintain pedestrian- and bicycle-only use of alleyways Downtown and in the California Avenue area where appropriate to provide connectivity between businesses and parking and transit stops, and consider public art in the alleyways as a way to encourage walking.
T-2.3	Use motor vehicle LOS at signalized intersections to evaluate the potential impact of proposed projects, including contributions to cumulative congestion. Use signal warrants and other metrics to evaluate impacts at unsignalized intersections.

Policy	Description
T-2.4	Consistent with the principles of Complete Streets adopted by the City, work to achieve and maintain acceptable levels of service for transit vehicles, bicyclists, pedestrians and automobiles on roads in Palo Alto, while maintaining the ability to customize to the Palo Alto context.
T-3.1	Maintain a hierarchy of streets that includes freeways, expressways, arterials, residential arterials, collector streets and local streets, balancing the needs of all users in a safe and appropriate manner.
T-3.2	Enhance connections to, from and between parks, community centers, recreation facilities, libraries and schools for all users.
T-3.3	Avoid major increases in single-occupant vehicle capacity when constructing or modifying roadways unless needed to remedy severe congestion or critical neighborhood traffic problems. Where capacity is increased, balance the needs of motor vehicles with those of pedestrians and bicyclists.
T-3.5	When constructing or modifying roadways, plan for use of the roadway by all users.
T-3.6	Consider pedestrians, bicyclists, e-bikes and motorcycles when designing road surfaces, curbs, crossings, signage, landscaping and sight lines.
T-3.7	Encourage pedestrian-friendly design features such as sidewalks, street trees, on-street parking, gathering spaces, gardens, outdoor furniture, art and interesting architectural details.
T-3.8	Add planting pockets with street trees to provide shade, calm traffic and enhance the pedestrian realm.
T-4.1	Keep all neighborhood streets open as a general rule.
T-4.2	Continue to construct traffic calming measures to slow traffic on local and collector residential streets, and prioritize traffic calming measures for safety over congestion management.
T-4.3	Identify specific improvements that can be used to discourage drivers from using local, neighborhood streets to bypass traffic congestion on arterials.
T-4.6	Require project proponents to employ the TIRE methodology to measure potential street impacts from proposed new development of all types in residential neighborhoods.
T-4.7	Require new residential development projects to implement best practices for street design, stormwater management and green infrastructure.
T-5.1	All new development projects should manage parking demand generated by the project, without the use of on-street parking, consistent with the established parking regulations. As demonstrated parking demand decreases over time, parking requirements for new construction should decrease.
T-5.12	To promote bicycle use, increase the number of safe, attractive and well-designed bicycle parking spaces available in the city, including spots for diverse types of bicycle and associated equipment, including bicycle trailers, prioritizing heavily travelled areas such as commercial and retail centers, employment districts, recreational/cultural facilities, multi-modal transit facilities and ride share stops for bicycle parking infrastructure.
T-6.1	Continue to make safety the first priority of citywide transportation planning. Prioritize pedestrian, bicycle and automobile safety over motor vehicle level of service at intersections and motor vehicle parking.

City of Palo Alto Municipal Code (Title 10 Vehicles and Traffic)

Title 10 of the PAMC regulates vehicle and traffic operations within the City, which includes traffic-control devices, pedestrian safety, bicycle safety and designated bike paths, and general vehicle and traffic safety.

City of Palo Alto Vehicle Miles Traveled Policy

On June 15, 2020, the City of Palo Alto City Council adopted a resolution designating VMT as the metric for conducting transportation analyses pursuant to the CEQA, establishing CEQA thresholds of significance related to VMT, and identifying screening criteria to limit review for projects presumed to have a less than significant VMT impact based on substantial evidence. Projects screened from requiring a VMT analysis would not have an impact under State CEQA Guidelines Section 15064.3.

Consistent with State CEQA Guidelines Section 15064.3, the City of Palo Alto has adopted the thresholds of significance set forth in Table 3.11-1 below to guide in determining when a project will have a significant transportation impact.

Table 3.11-1: VMT Thresholds of Significance

Land Use/Project Type	Threshold of Significance
Residential	A proposed project exceeding a level of 15 percent below existing (baseline) County home-based VMT per resident may indicate a significant transportation impact.
Office	A proposed project exceeding a level of 15 percent below existing (baseline) regional home-based work VMT per employee may indicate a significant transportation impact.
Retail	A proposed project that results in a net increase in total (boundary) VMT may indicate a significant transportation impact.
Mixed-Use	Each component of a proposed mixed-use project should be evaluated independently and apply thresholds of significance for each project type separately (i.e., residential, office, and retail).
Redevelopment	Where a proposed project replaces existing VMT-generating land uses, if the replacement leads to a net overall decrease in VMT, the project may cause a less than significant transportation impact. If the redevelopment project leads to a net overall increase in VMT, it may cause a significant transportation impact if proposed new residential, office, or retail land uses would individually exceed their respective thresholds.

Local Transportation Analysis Policy

While statewide implementation of VMT analysis to replace LOS analysis is required under CEQA, SB 743 did not require changes to transportation analyses outside of CEQA, including the evaluation of regionally significant intersections under the Congestion Management Program (CMP) under a separate state law. Nor did SB 743 affect the discretion of public agencies to assess impacts on local streets and intersections for compliance with adopted plans and policies. As such, in conformance with Policy T-2.3 and Program T-2.3.1 of the City's 2030 Comprehensive Plan, LOS standards are adopted through this policy to analyze potential local transportation impacts of projects in Palo Alto. The purpose of this Policy is to ensure consistency in reviewing and identifying transportation effects of proposed development projects for local intersections and facilities and to determine standards for necessary remediation measures.

Palo Alto Bicycle and Pedestrian Transportation Plan

The Palo Alto Bicycle and Pedestrian Transportation Plan was adopted in July 2012. The plan identifies objectives for the expansion of bicycle and pedestrian goals for the City. The City has a goal of expanding all bicycle commute trips. This supports the City's additional goals to encourage a life-long appreciation for bicycle commuting, to support healthy living and to reduce the impacts of global climate change.

3.11.1.2 *Existing Conditions*

Roadway Network

Regional Access

Regional vehicular access to the NVCAP area is provided by two freeways and one State highway. I-280 passes through Palo Alto to the west, proving connections north to San Francisco and south to San Jose. Highway 101 (US 101) runs along the eastern perimeter of the City, also providing a north-south freeway connection between San Francisco and San José.

Local Access

Page Mill Road is a four-lane, east-west principal arterial which provides access between US 101 and I-280 and El Camino Real.

Park Boulevard is a two-lane north-south collector street providing access between the Evergreen Park, Ventura, and Charleston Meadow neighborhoods.

Lambert Avenue is a two-lane collector road running along the southeast boundary of the NVCAP area. The road carries low traffic volumes and provides access to a mix of both residential and industrial land uses. Lambert Avenue accommodates parallel parking along both sides of the road.

El Camino Real is a north-south principal arterial roadway that provides local and regional access between San Francisco and San José. This road has three travel lanes in each direction and one to

two left turn lanes at major driveways and intersections. Within the study area, the northbound and southbound travel lanes are separated by a median.

Other key local collector streets that provide internal access to the NVCAP area include Ash Street, Acacia Avenue, Olive Avenue, Pepper Avenue, and Portage Avenue.

Pedestrian Facilities

Existing pedestrian access shown in Figure 3.11-1. As shown, Olive Avenue is currently the only street that provides direct connectivity through the NVCAP area. Most of the primary streets internal to the site including Pepper Avenue, Olive Avenue and Ash Street have complete sidewalks on both sides of the street. There are some incomplete sidewalks along Acacia Avenue and Portage Avenue.

Bicycle Facilities

In the NVCAP vicinity, Class II bikeways (bike lanes) exist on Park Boulevard and Page Mill Road.

Class II bike lanes are striped bike lanes on roadways that are marked by signage and pavement markings. Within the vicinity of the NVCAP, striped bike lanes are present on the following roadway segments:

- Page Mill Road (between El Camino Real and Berry Hill Court)
- Park Boulevard (between California Avenue and Lambert Avenue)

Existing bicycle facilities within the NVCAP vicinity are shown on Figure 3.11-2.

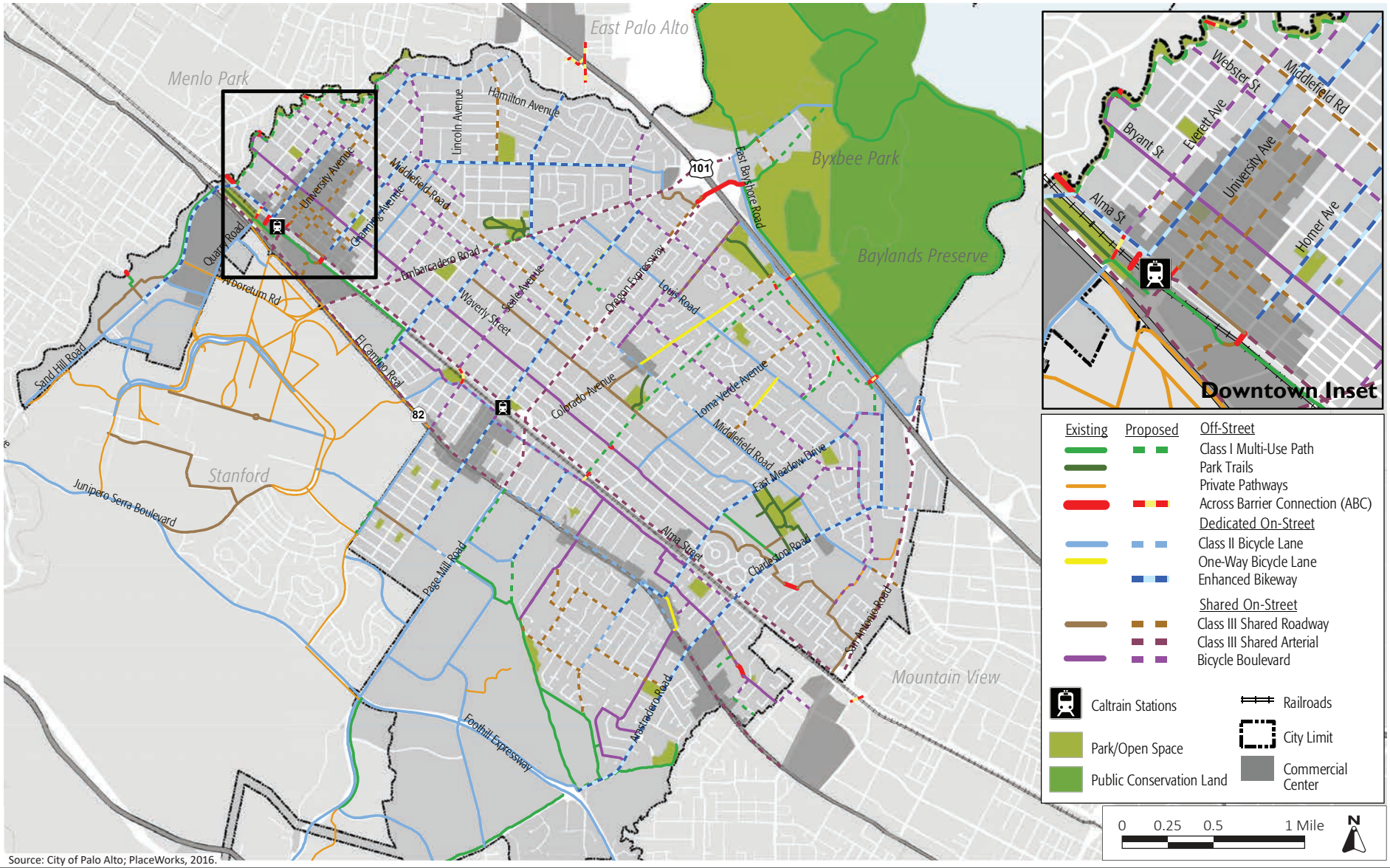
Transit Services

The Santa Clara VTA provides fixed route bus service and light rail train service in Santa Clara County. Within the vicinity of the NVCAP, there are bus stops for routes 22, 89, 522, Rapid 522, Express 101, Express 102, and Express 103. The combined service areas of these routes provide access between the NVCAP area and a variety of destinations such as the Palo Alto Transit Center, Palo Alto VA Hospital, Stanford Research Park, Santa Clara University, Winchester Light Rail Station, Santa Teresa Light Rail Station, Downtown San José, and Eastridge Transit Center. Bus service for these routes is generally available daily for 24 hours a day at 15- to 30- minute headways.

Existing transit facilities within the NVCAP vicinity are shown on Figure 3.11-3.

Source: Perkins&Will, December 18, 2018.

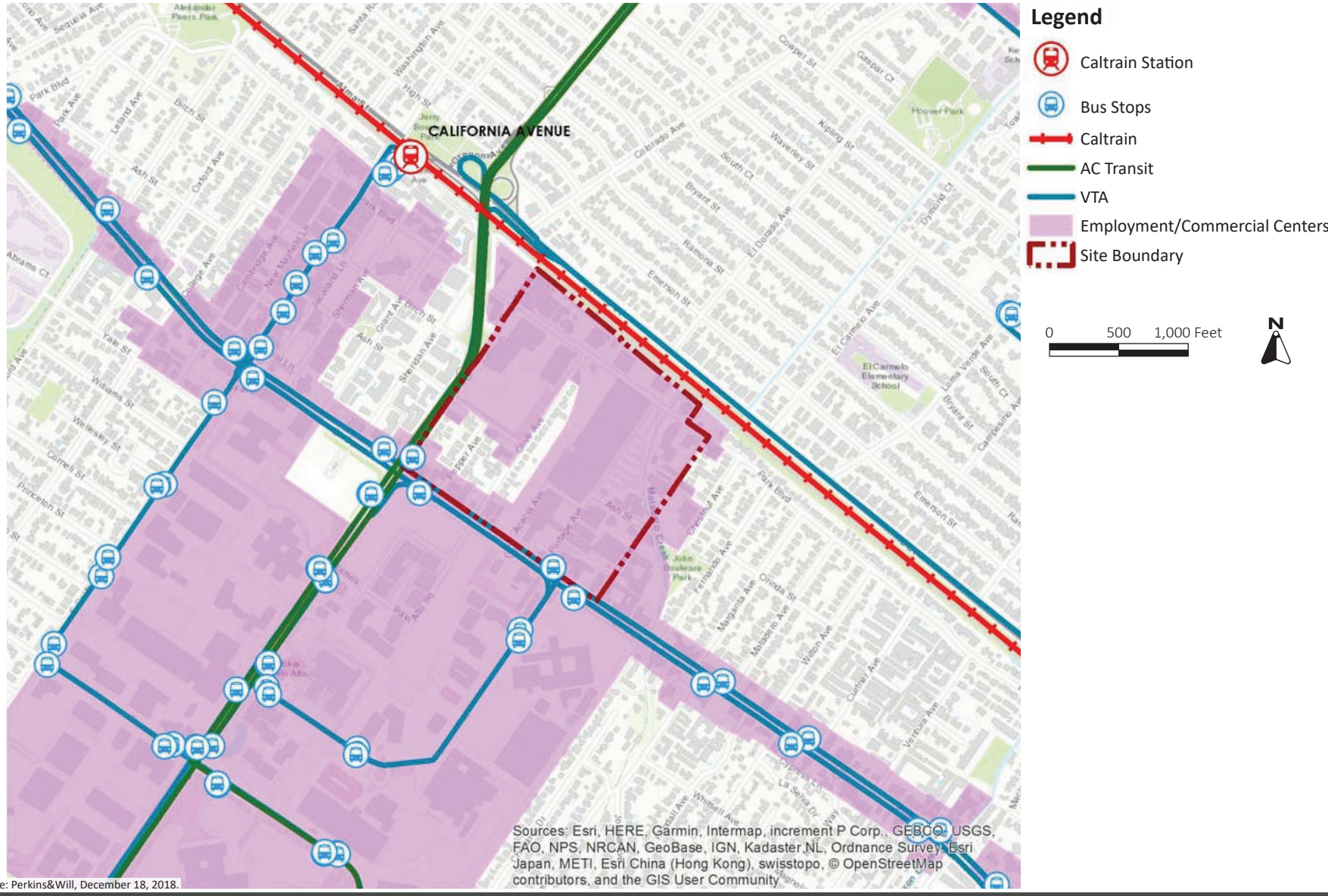
EXISTING PEDESTRIAN ACCESS | FIGURE 3.11-1



Source: City of Palo Alto; PlaceWorks, 2016.

EXISTING BICYCLE FACILITIES

FIGURE 3.11-2



Source: Perkins&Will, December 18, 2018.

EXISTING TRANSIT FACILITIES

FIGURE 3.11-3

The Dumbarton Express service is provided through a consortium of AC Transit, Bay Area Rapid Transit (BART), Union City Transit, Caltrain, SamTrans and the VTA. This service is provided on weekdays as an express bus service across the Dumbarton Bridge, connecting Palo Alto and Menlo Park with Union City, Fremont, and Newark. Route DB1 provides services from the Union City BART Station to the Stanford Research Park and operates from 5:10 a.m. to 8:30 p.m. with headways ranging from 15 to 25 minutes depending on the time of day.[87] The nearest bus stop for Route DB1 is located at the intersection of Page Mill Road/El Camino Real. Weekend service is not provided on Route DB1.

The Stanford Research Park shuttle provides rides from the Palo Alto Transit Center to the Research Park during the morning commute period and back to the Palo Alto Transit Center during the evening commute. Shuttles are typically available at 20-minute headways between 7:00 a.m. to 10:00 a.m. in the morning and 3:20 p.m. to 7:00 pm in the evening.[88] The nearest shuttle stop for this service is located at the intersection of Page Mill Road/El Camino Real.

Caltrain is the commuter rail line serving the San Francisco Peninsula. It connects Palo Alto with San Francisco to the north and San José and Gilroy to the south. The California Avenue Caltrain Station is located at 101 California Avenue which is approximately 0.5 miles from the intersection of Olive Avenue and Ash Street. Weekday train service is provided at this station with both northbound and southbound trains at one-hour headways from 8:00 a.m. to 11:00 p.m.

3.11.2 Impact Discussion

For the purpose of determining the significance of the project's impact on transportation, would the project:

1) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle lanes, and pedestrian facilities?
2) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?
3) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
4) Result in inadequate emergency access?

3.11.2.1 *2030 Comprehensive Plan Update FEIR – Transportation Conclusions*

The 2030 Comprehensive Plan Update FEIR evaluated traffic based on level of service, or vehicular delay, at intersections and along freeway and roadway segments, and found that the Comprehensive Plan build out would result in significant and unavoidable traffic impacts related to

[87] Dumbarton Express. Line DB1 Schedule. Accessed March 31, 2023. https://dumbartonexpress.com/line-db1-schedule/
[88] Stanford Transportation. Research Park. Accessed March 31, 2023. https://transportation.stanford.edu/marguerite/rp#marguerite--schedule-anchor

level of service (LOS). After the certification of the 2030 Comprehensive Plan Update FEIR and adoption of the 2030 Comprehensive Plan, SB 743 was enacted and related Guidelines implementing SB 743 (see Guidelines Section 15604.3) were adopted which require lead agencies to evaluate transportation impacts using VMT. A project's effect on automobile delay is no longer considered an impact under CEQA.

3.11.2.2 *Project Impacts*

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

Roadway Network

While a project's effect on automobile delay is no longer considered an impact under CEQA, local jurisdictions have roadway LOS standards. Although a project's effects on LOS are no longer considered an impact on the environment, Comprehensive Plan Policy T-2.3 and the City's Local Transportation Analysis Policy (refer to Section 3.11.1.1) addresses LOS as a planning or growth management matter, outside the CEQA process. In the event a project causes an LOS deficiency, the City has discretion whether to require a project to address the deficiency by implementing roadway or other transportation improvements to restore or improve the LOS, and the relevant question under CEQA is whether those improvements would result in adverse physical changes to the environment, not whether LOS has degraded below the condition considered acceptable.

As discussed in Section 3.11.3 Non-CEQA effects and detailed in Appendix F, intersection operations at four intersections (one County and two Caltrans intersections) could degrade below City standards as a result of the NVCAP at the horizon year. These intersections would degrade to LOS F with or without the proposed project. The implementation of signalization or other pedestrian improvements at any of these intersections would need to be evaluated further in coordination with the relevant jurisdiction (County for Page Mill Road; Caltrans for El Camino Real) and may require further evaluation in accordance with CEQA at that time if the city or another jurisdiction chooses to implement improvements. No other physical improvements were identified.

In accordance with PAMC Section 16.59, future development projects under the NVCAP would be required to pay a Transportation Impact Fee for new PM peak hour trips associated with the project.

As discussed in Section 2.3.7 Transportation Demand Management Strategies, future development projects under the NVCAP would be required to prepare a TDM plan. The 2030 Comprehensive Plan established a 35 percent reduction requirement in the California Avenue area. TDM plans must be approved by the City and monitored on an annual basis. For these reasons, the NVCAP would be consistent with the City's Local Transportation Analysis Policy and 2030 Comprehensive Plan.

Pedestrian and Bicycle Facilities

Under the NVCAP, sidewalks would be a minimum of 12 feet including a pedestrian clear zone (eight feet) and the landscape/furniture zone. As discussed in Section 3.11.1.2 Existing Conditions, existing Class II bicycle facilities are present on Park Boulevard (between California Avenue and Lambert Avenue) and Page Mill Road (between El Camino Real and Berry Hill Court). As discussed in Section 2.3.5.2 Pedestrian and Bicycle Improvements, the NVCAP would eliminate portions of on-street parking to create opportunities for new Class IV bike lanes (protected lanes) on Park Boulevard. Class II (separated bike lanes) and Class III (shared travel lanes) would be provided on Olive Avenue, Ash Street, and Portage Avenue (refer to Figure 2.3-4).

The NVCAP's design standards promote and facilitate bicycle and pedestrian travel. Therefore, the project would not conflict with a program, plan, ordinance, or policy addressing pedestrian facilities.

Transit Facilities

The NVCAP area is within walking distance of the California Avenue Caltrain Station, which is approximately 0.5 miles from the intersection of Olive Avenue and Ash Street. Bus and shuttle services are operated in the NVCAP vicinity by Santa Clara VTA, Dumbarton Express, and Stanford. The NVCAP would not interfere with these transit facilities.

The 2030 Comprehensive Plan Update FEIR found that increased long-term development in Palo Alto would not cause transit demand to exceed capacity. By the year 2040, the only transit service that is likely to approach full capacity is Caltrain, which could operate at 97 percent of capacity. Consistent with this conclusion, although the project would increase demand for bus and rail services, the project is consistent with the City's 2030 Comprehensive Plan (see Section 3.9, Land Use and Planning). Therefore, because the project is consistent with development envisioned under the Comprehensive Plan, it is consistent with the findings of the 2030 Comprehensive Update Plan FEIR and would not increase demand beyond levels anticipated in the 2030 Comprehensive Plan Update FEIR.

Implementation of the NVCAP would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle lanes, and pedestrian facilities. **[Same Impact than Approved Project (Less than Significant Impact)]**

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

The City's Vehicle Miles Traveled Policy establishes CEQA thresholds of significance related to VMT and identifies screening criteria to limit review for projects presumed to have a less than significant VMT impact based on substantial evidence. Projects screened from a VMT analysis would not have an impact under State CEQA Guidelines Section 15064.3. Within the screening criteria, projects would be exempt from VMT analysis under the following conditions:

- Projects that generate fewer than 110 trips per day (i.e., non-residential projects less than 10,000 square feet or residential projects with fewer than 20 units)
- Residential and office projects located in low-VMT[89] areas
- Projects that are located within one-half mile of an existing or planned high-quality transit corridor or major transit stations[90]
- 100 percent affordable housing projects in infill locations
- Retail projects of 50,000 square feet or less
- Roadway, transit, bicycle and pedestrian projects that do not lead to a measurable increase in vehicle travel

The NVCAP does not meet the City's screening criteria since the project is not entirely within the one-half mile distance of the Caltrain station. Therefore, a VMT analysis was prepared consistent with the City's VMT policy. Since the NVCAP would result in a net reduction of up to 278,000 square feet of office and up to 7,500 square feet of retail, it was determined that the office portion of the project would result in less than significant VMT impacts. The City's CEQA significance threshold for residential projects is 15 percent below existing (baseline) County home-based VMT per resident. Based on the Santa Clara Countywide VMT Evaluation Tool (Version 2), the existing home-based VMT per capita is 13.13. The results of the VMT analysis are summarized in Table 3.11-2.

Table 3.11-2: VMT Analysis Summary

VMT Metric	Baseline VMT (County Average)	Significance Threshold	Without Project	With Project[1]
Home-based VMT per capita (Countywide baseline)	13.33	11.33	5.84	4.09

Notes:

1. Assumes Tier 1-3 reductions reflect residential density, affordable housing, multimodal infrastructure, and parking.

The results of the VMT evaluation indicate that the residential VMT component would generate 4.09 home-based VMT per capita, which would be below the established significance threshold of 11.33 home-based VMT per capita. Therefore, NVCAP would have a less-than-significant VMT per resident impact. **[New Less than Significant Impact[91]]**

[89] Residential projects located in areas where baseline VMT is 15 percent below the existing county average per resident, and office projects located in areas where baseline VMT is 15 percent below the existing regional average per employee.

[90] Must also meet the following additional criteria: (1) is high density (0.75 FAR minimum), (2) does not exceed parking requirements, (3) is consistent with Plan Bay Area 2040 and (4) does not replace affordable units with smaller numbers of moderate- or above-moderate income units.

[91] The 2030 Comprehensive Plan Update FEIR did not use VMT as the basis for a standard of significance. Therefore, no impact finding regarding VMT was made.

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

The NVCAP is a long-range planning document that would guide future development in the City but would not introduce any physical features that would create an obvious safety hazard. The proposed circulation network (see Figure 2.3 2) would result in greater mobility and connectivity throughout the NVCAP. All future transportation network improvements would be designed to City standards to prevent sharp curves or dangerous intersections. No incompatible land uses (such as farm equipment) are proposed. In addition, future NVCAP development would be subject to the City's development review process to ensure the design does not result in a safety hazard. **[Same Impact as Approved Project (Less than Significant Impact)]**

d) Would the project result in inadequate emergency access?

The 2030 Comprehensive Plan Update FEIR acknowledged the issue of adequate emergency access applies to specific development projects. Future NVCAP development projects would be reviewed by the City and the Fire Department to ensure that adequate site access is provided. **[Same Impact as Approved Project (Less than Significant Impact)]**

3.11.2.3 *Cumulative Impacts*

Would the project result in a cumulatively considerable contribution to a cumulatively significant transportation impact?

Consistency with Circulation System Programs, Plans, Ordinances, or Policies

The geographic area for consistency with local programs, plans, ordinances, or policies is citywide. Future cumulative projects (including the NVCAP) would be required to prepare a Local Transportation Analysis (LTA) if the project is expected to substantially affect the identified local roadway and transit facilities, in conformance with Policy T-2.3 and Program T-2.3.1 of the City's 2030 Comprehensive Plan. The LTA would include an evaluation of potential traffic disturbances along local residential streets, a transit analysis, and a bicycle and pedestrian circulation study. For these reasons, future cumulative development would comply with the City's Comprehensive Plan and Bicycle and Pedestrian Transportation Plan.

VMT

The geographic area for cumulative VMT is Santa Clara County. The project-level VMT analysis discussion under checklist question b) is also a cumulative analysis since it compares the Project to the County-wide VMT threshold. Therefore, the project would not contribute to a significant cumulative VMT impact.

Design Hazards, Incompatible Uses, and Emergency Access

The geographic area for cumulative design hazards, incompatible uses, and emergency access is the general vicinity near the NVCAP. Future development projects (inside or outside the NVCAP boundary) would be subject to the City's standard development review process to ensure design standards are met, that there are no design hazards, or incompatible uses, and that there is adequate emergency access. Thus, cumulative projects (including the NVCAP) would not result in a significant cumulative impact due to design hazards, incompatible uses, or emergency access. As discussed above, implementation of the NVCAP would result in less than significant cumulative transportation impacts. **[Same Impact as Approved Project (Less than Significant Cumulative Impact)]**

3.11.3 Non-CEQA Effects

While the evaluation of project CEQA impacts on the transportation system is based on VMT, in accordance with City of Palo Alto's Local Transportation Impact Analysis Policy, the following discussion is included for informational purposes. In accordance with the Local Transportation Analysis Policy, the City requires preparation of a Local Transportation Analysis (LTA) to analyze non-CEQA transportation issues, including local transportation operations, intersection level of service, site access and circulation, and neighborhood transportation issues such as pedestrian and bicycle access, and transportation improvements.

Trip Generation

The magnitude of traffic produced by new development and the locations where that traffic would appear are estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. In determining project trip generation, the volume of traffic entering and exiting the site is estimated for the AM and PM peak hours. Trips generated by existing development are then subtracted from project-generated trips to determine the project's net effect on intersection LOS. More information on how NVCAP trip generation rates were calculated can be found in Appendix F. NVCAP trip generation estimates are presented in Table 3.11-3.

Table 3.11-3: NVCAP Trip Generation Estimates

Land Use Category[1]	Daily Trips	AM Peak Hours			PM Peak Hours		
		In	Out	Total	In	Out	Total
Existing Conditions (2023)							
Residential (142 units)	814	15	48	63	46	28	74
Commercial (855.2k sq. ft.)	11,130	855	184	1,039	360	882	1,242
A. Total Existing Trips	11,944	870	232	1,102	406	910	1,316
NVCAP Build Out Conditions (2040)							
Residential (672 units)	3,220	60	199	259	172	109	281
Commercial (569.7k sq. ft.)	10,183	683	153	836	333	762	1,095
B. Total NVCAP Trips	13,403	743	352	1,095	505	871	1,376
C. Net NVCAP Trips[2]	**1,459**	**-127**	**120**	**-7**	**99**	**-39**	**60**

Source: ARUP. *North Ventura Coordinated Area Plan Traffic Results Technical Memo*. December 12, 2023.

Notes:

[1] Residential trips are based on a blend of single- and multi-family trip generation rates. Commercial trips are based on a blend of office and retail trip generation rates.

[2] Net NVCAP trips are calculated by subtracting trips generated by existing conditions from trips (A) generated under NVCAP build out conditions (B). B minus A equals C.

As shown in Table 3.11-3, build out of the NVCAP would result in an overall increase of 1,459 trips, with trips decreasing in the AM peak hour (-7 net trips) and increasing in the PM peak hour (+60 net trips), which is consistent with the proposed increase in residential uses and decrease of commercial uses under the NVCAP. The trip generation numbers do not factor in the reduction in trips achieved by MM TRN-1.1 and, therefore, are considered conservative.

Intersection Level of Service

Pursuant to the City's Local Transportation Analysis Policy, the LOS standard for all intersections is LOS D or better. Projects would result in an adverse LOS effect if they would cause intersections not already operating at LOS D or worse to operate at LOS D or worse, or for intersections already operating at LOS D or worse, cause intersection operations to deteriorate in accordance with one or more of the following criteria:

- Addition of project traffic increases average delay for critical movements by four or more seconds; or

- Addition of project traffic increases the critical volume/capacity (v/c) value by 0.01 or more; or
- Affects a freeway segment or ramp to operate at LOS F or project traffic increases freeway capacity by one or more percent.

In accordance with standard City practice and methodology, the project's effect on LOS was analyzed at 16 intersections, including four signalized intersections and 12 unsignalized intersections. Six of the study intersections are under Caltrans jurisdiction; however, the City's LOS standard of LOS D is more conservative than the Caltrans standard of LOS E, so all intersections were analyzed based on the City's LOS standard. More information about the LOS analysis, including methodology, trip distribution, trip assignment, and City and County standards is included in Appendix F.

As shown in Table 3.11-4, the LOS analysis found that the addition of NVCAP trips (from full buildout) could have an adverse effect on intersection operations under horizon plus project conditions at four intersections. This includes one County intersection and three Caltrans intersections.

Table 3.11-4: Intersection Operations at Affected Intersections

Intersection	Peak Period	Horizon No Project (2040)			Horizon Plus Project (2040)		
		LOS[1]	V/C[2]	Avg. Delay in Seconds	LOS[1]	V/C[2]	Avg. Delay in Seconds
Page Mill Road/Ash Street	AM	F	0.94	78	F	**0.96**	**79.8**
	PM	F	1.55	>180	F	**2.05**	**>180**
El Camino Real/Olive Avenue	AM	F	1.67	>180	F	**2.57**	**>180**
	PM	F	9.17	>180	F	**8.67**	**>180**
El Camino Real/Lambert Avenue	AM	F	1.09	>180	F	**1.15**	**>180**
	PM	F	1.56	>180	F	**1.36**	**>180**
El Camino Real/Page Mill Road	AM	F	1.76	150.9	F	**1.84**	**174.8**
	PM	F	2.02	166.3	F	**2.04**	**178.9**

Source: ARUP. *North Ventura Coordinated Area Plan Traffic Results Technical Memo*. December 12, 2023.

Notes:

[1] The LOS standard used is the City of Palo Alto's LOS/D standard.

[2] The critical volume/capacity shown is for critical movements at each intersection.

Caltrans intersections identified in *italics*.

LOS impacts identified in **bold** text.

3.12 Tribal Cultural Resources

3.12.1 Environmental Setting

3.12.1.1 *Regulatory Framework*

State

Assembly Bill 52 (2014)

Assembly Bill (AB) 52, effective July 2015, established a new category of resources for consideration by public agencies called Tribal Cultural Resources (TCRs). AB 52 requires lead agencies to provide notice of projects to tribes that are traditionally and culturally affiliated with the geographic area if they have requested to be notified. Where a project may have a significant impact on a tribal cultural resource, consultation is required until the parties agree to measures to mitigate or avoid a significant effect on a tribal cultural resource or until it is concluded that mutual agreement cannot be reached.

Under AB 52, TCRs are defined as follows:

- Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are also either:
    - Included or determined to be eligible for inclusion in the California Register of Historic Resources, or
    - Included in a local register of historical resources as defined in Public Resources Code Section 5020.1(k).
- A resource determined by the lead agency to be a TCR.

Local

2030 Comprehensive Plan

The following policies in the City's Comprehensive Plan have been adopted for the purpose of reducing or avoiding impacts related to tribal cultural resources and are applicable to the project.

Policy	Description
L-7.15	Protect Palo Alto's archaeological resources, including natural land formations, sacred sites, the historical landscape, historic habitats and remains of settlements here before the founding of Palo Alto in the 19th century.
L-7.16	Continue to consult with tribes as required by California Government Code Section 65352.3. In doing so, use appropriate procedures to accommodate tribal concerns when a tribe has a religious prohibition against revealing precise information about the location or previous practice at a particular sacred site.

3.12.1.2 *Existing Conditions*

In May 2016 the City of Palo received a single request from a tribe to be contacted in accordance with AB 52. However, through subsequent correspondence with the tribe, it was concluded that the tribe had contacted the City of Palo Alto in error and did not wish to be contacted regarding future projects within the City's jurisdiction. The tribe, the Torres Martinez Desert Cahuilla Indians, is not traditionally or culturally affiliated with the geographic area within the City of Palo Alto.

In June 2021 Tamien Nation contacted the City of Palo Alto and requested to be contacted in accordance with AB 52 for projects within the City's jurisdiction. Tamien Nation is culturally affiliated with the City's geographic area. On March 23, 2023, the City sent letters to tribes listed by the NAHC as having a potential affiliation to the NVCAP area, including Tamien Nation, who had specifically requested to be contacted. On March 27, 2023, the City received a formal request from Tamien Nation to consult on the project.

There are no known tribal cultural resources in the NVCAP area.

3.12.2 Impact Discussion

For the purpose of determining the significance of the project's impact on tribal cultural resources, would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

1) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?
2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

3.12.2.1 *2030 Comprehensive Plan Update FEIR – Tribal Cultural Resources Conclusions*

Tribal cultural resources was added to Appendix G of the CEQA Guidelines as its own individual section following the certification of the 2030 Comprehensive Plan Update FEIR. Therefore, the FEIR did not formally analyze impacts to tribal cultural resources (refer to Section 3.4.2.1 of this SEIR for a summary of the 2030 Comprehensive Plan Update FEIR's conclusions on impacts to archaeological resources).

3.12.2.2 *Project Impacts*

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?

There are no known Tribal Cultural Resources within the NVCAP area. The City received written notice from Tamien Nation on March 27, 2023 requesting consultation pursuant to AB 52. The City met virtually with Quirina Geary on April 19, 2023 for the first AB 52 consultation meeting. During the consultation meeting, the tribe indicated that they would provide recommended mitigation measures to be implemented by the project. Staff followed up in June 2023, and recommend mitigation measures were provided on June 7, 2023. The City reviewed the recommended Mitigation Measures and provided suggested modifications for Tamien Nation's consideration. The revised measures were accepted on September 8, 2023. Tamien Nation confirmed that, with incorporation of those measures, they concurred that tribal consultation could be deemed complete. The measures agreed to in accordance with AB 52 tribal consultation are incorporated herein.

Impact TCR-1: Future projects proposed under the North Ventura Coordinated Area Plan could potentially result in impacts to undiscovered tribal cultural resources.

Mitigation Measures:

Future discretionary projects with the Plan Area that are not exempt from CEQA shall implement the following mitigation measures to reduce impacts to archaeological resources that may be present on-site.

MM TCR-1.1: **Cultural Sensitivity Training.** Prior to issuance of any grading permit, the project applicant shall be required to submit evidence that a Cultural Awareness Training program has been provided to construction personnel. The training shall be facilitated by a qualified archaeologist in collaboration with a Native American representative registered with the Native American Heritage Commission for the City of Palo Alto and that is traditionally and culturally affiliated with the geographic area as described in Public Resources Code Section 21080.3.

MM TCR-1.2: **Sub-Surface Monitoring.** Prior to issuance of any tree removal, grading, demolition, and/or building permits or activities, the applicant shall notify the Director of Planning, of grading and construction dates and activities that require a qualified archeologist and Native American monitor to be present on the project site. The City shall then notify the tribe via email correspondence 10 days prior to any grading or construction activities. If the tribe chooses not to send a monitor or does not respond within the 10 days, work shall continue without the monitor.

A qualified archaeologist and a Native American monitor, registered with the Native American Heritage Commission for the City of Palo Alto and that is traditionally and culturally affiliated with the geographic area as described in Public Resources Code Section 21080.3, shall be present during earthmoving activities including, trenching, initial or full grading, scraping or blading, lifting of foundation, boring, drilling, , or major landscaping. The qualified archaeologist and Native American monitor shall have the authority to halt construction activities in the event any cultural materials are encountered during ground-disturbing construction activities. The qualified archeologist and Native American monitor shall keep a daily monitoring log on days that monitoring occurs documenting construction activities that were monitored, location of the monitoring, and any cultural materials identified. These daily monitoring logs shall be made available to the City upon request.

MM TCR-1.3: **Treatment Plan.** In the event any significant cultural materials are encountered during construction, construction within a radius of 50 feet of the find would be halted, the Director of Planning shall be notified, and the on-site qualified archaeologist shall examine the find and make appropriate recommendations regarding the significance of the find and the appropriate treatment of the resource.

The qualified archeologist in collaboration with a Native American monitor, registered with the Native American Heritage Commission for the City of Palo Alto and that is traditionally and culturally affiliated with the geographic area as described in Public Resources Code Section 21080.3, shall prepare and implement a treatment plan that reflects permit-level detail pertaining to depths and locations of excavation activities. The treatment plan shall contain, at a minimum:

- Identification of the scope of work and range of subsurface effects (including location map and development plan), including requirements for preliminary field investigations.
- Description of the environmental setting (past and present) and the historic/prehistoric background of the parcel (potential range of what might be found).
- Monitoring schedules and individuals.
- Development of research questions and goals to be addressed by the investigation (what is significant vs. what is redundant information).
- Detailed field strategy to record, recover, or avoid the finds and address research goals.
- Analytical methods.
- Report structure and outline of document contents.

- Disposition of the artifacts.
- Security approaches or protocols for finds.
- Appendices: all site records, correspondence, and consultation with Native Americans, etc.

The treatment plan shall utilize data recovery methods to reduce impacts on subsurface resources. The treatment plan must be reviewed and approved by the Director of Planning, or the Director's designee prior to implementation of the plan.

MM TCR-1.3: **Evaluation.** The project applicant shall notify the Director of Planning, Native American Monitor, and Archeological Monitor, of any finds during grading or other construction activities. Any historic or prehistoric material identified in the project area during excavation activities shall be evaluated for eligibility for listing in the California Register of Historic Resources as determined by the California Office of Historic Preservation. Data recovery methods may include, but are not limited to, backhoe trenching, shovel test, hand auguring, and hand-excavation. The techniques used for data recovery shall follow the protocols identified in the approved treatment plan. Data recovery shall include excavation and exposure of features, field documentation, and recordation. All documentation and recordation shall be submitted to the Northwest Information Center, and the Director of Planning.

As discussed under checklist question b) in Section 3.4 Cultural Resources, future development under the NVCAP would adhere to Comprehensive Plan Policy L-7.15 which requires protection of archaeological resources and Polices L-7.17 and L-7.18 which require mitigation, identification, and protection of archaeological resources. In addition, future development would be required to adhere to Comprehensive Plan Policy L-7.16 that would ensure tribes are contacted and consulted with in accordance with California Government Code Section 65352.3.

With implementation of mitigation measures MM TCR-1.1 through 1.4, Comprehensive Plan policies and existing regulations, future development under the NVCAP would not result in a significant impact to cultural resources (including tribal cultural resources). **[Same Impact as Approved Project (Less than Significant Impact with Mitigation Incorporated)]**

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b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource that is determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1?

There are no known tribal cultural resources in the NVCAP area. Refer to the discussion under checklist question a) above. With adherence to mitigation measures TCR-1.1 through 1.4, and Comprehensive Plan Policies L-7.15 through L-7.18, the NVCAP would not cause a substantial

adverse change in the significance of a tribal cultural resource. **[Same Impact as Approved Project (Less than Significant Impact with Mitigation Incorporated)]**

3.12.2.3 *Cumulative Impacts*

Would the project result in a cumulatively considerable contribution to a cumulatively significant tribal cultural resources impact?

The geographic area for cumulative impacts to tribal cultural resources includes the NVCAP sites and adjacent parcels, where construction and operation of future development under the NVCAP could contribute to on- and off-site impacts to cultural resources.

Future cumulative development may require excavation and grading or other activities that may affect tribal cultural resources. Comprehensive Plan Policy L-7.15 requires protection of archaeological resources and Polices L-7.17 and L-7.18 require mitigation, identification, and protection of archaeological resources. As a result, cumulative development (including the NVCAP) would not result in significant cumulative impacts to tribal cultural resources. **[Same Impact as Approved Project (Less than Significant Cumulative Impact)]**

3.13 Utilities and Service Systems

The following discussion is based, in part, on a Utilities and Infrastructure Analysis prepared for the project by the BKF Engineers. The report is attached to this EIR as Appendix G.

3.13.1 Environmental Setting

3.13.1.1 *Regulatory Framework*

State

State Water Code

Pursuant to the State Water Code, water suppliers providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet (approximately 980 million gallons) of water annually must prepare and adopt an urban water management plan (UWMP) and update it every five years. As part of a UWMP, water agencies are required to evaluate and describe their water resource supplies and projected needs over a 20-year planning horizon, water conservation, water service reliability, water recycling, opportunities for water transfers, and contingency plans for drought events. The City of Palo Alto adopted its most recent UWMP in June 2021.

Assembly Bill 939 (1989)

The California Integrated Waste Management Act of 1989, or AB 939, established the Integrated Waste Management Board, required the implementation of integrated waste management plans, and mandated that local jurisdictions divert at least 50 percent of solid waste generated (from 1990 levels), beginning January 1, 2000, and divert at least 75 percent by 2010. Projects that would have an adverse effect on waste diversion goals are required to include waste diversion mitigation measures.

Assembly Bill 341 (2011)

AB 341 sets forth the requirements of the statewide mandatory commercial recycling program. Businesses that generate four or more cubic yards of garbage per week and multi-family dwellings with five or more units in California are required to recycle. AB 341 sets a statewide goal for 75 percent disposal reduction by the year 2020.

Senate Bill 610 (2001)

SB 610 amended state law, effective January 1, 2002, to improve the link between information on water supply availability and certain land use decisions made by cities and counties. SB 610 requires preparation of a water supply assessment (WSA) containing detailed information regarding water availability to be provided to the decision-makers prior to approval of specified large development projects that also require a General Plan Amendment. This WSA must be included in the administrative record that serves as the evidentiary basis for an approval action by the city or county on such projects. Under SB 610, WSAs must be furnished to local governments for inclusion

in any environmental documentation for certain projects subject to CEQA. Pursuant to the California Water Code (Section 10912[a]), projects that require a WSA include any of the following:

- A proposed residential development of more than 500 dwelling units;
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space;
- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space;
- A proposed hotel or motel, or both, having more than 500 rooms;
- A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area;
- A mixed-use project that includes one or more of the projects identified in this list; or
- A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

Senate Bill 1383 (2016)

SB 1383 establishes targets to achieve a 50 percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020 and a 75 percent reduction by 2025. The bill grants CalRecycle the regulatory authority required to achieve the organic waste disposal reduction targets and establishes an additional target that at least 20 percent of currently disposed edible food is recovered for human consumption by 2025. CalRecycle released an analysis titled "Analysis of the Progress Toward the SB 1383 Organic Wase Reduction Goals" in August of 2020, which recommended maintaining the disposal reduction targets set forth in SB 1383.[92]

California Green Building Standards Code

In January 2010, the State of California adopted the California Green Building Standards Code, establishing mandatory green building standards for all buildings in California. The code covers five categories: planning and design, energy efficiency, water efficiency and conservation, material conservation and resources efficiency, and indoor environmental quality. These standards include the following mandatory set of measures, as well as more rigorous voluntary guidelines, for new construction projects to achieve specific green building performance levels:

- Reducing indoor water use by 20 percent;
- Reducing wastewater by 20 percent;

[92] CalRecycle. Analysis of the Progress Toward the SB 1383 Organic Wase Reduction Goals. February 16, 2023. https://www2.calrecycle.ca.gov/Publications/Details/1693#:~:text=Analysis%20of%20the%20Progress%20Toward,(DRRR%2D2020%2D1693)&text=SB%201383%20establishes%20targets%20to,75%20percent%20reduction%20by%202025.

- Recycling and/or salvaging 50 percent of nonhazardous construction and demolition debris; and
- Providing readily accessible areas for recycling by occupants.

Local

2030 Comprehensive Plan

The following policies in the City's Comprehensive Plan have been adopted for the purpose of reducing or avoiding impacts related to utilities and service systems and are applicable to the project.

Policy	Description
L-9.11	Provide utilities and service systems to serve all urbanized areas of Palo Alto and plan infrastructure maintenance and improvements to adequately serve existing and planned development.
N-4.1	Maintain a safe, clean and reliable long-term supply of water for Palo Alto.
N-4.2	Maintain cost-effective citywide water conservation and efficiency programs for all customers, including low income customers, through education, rebates, assistance programs and building requirements.
N-4.4	Manage water supply and water quality to reflect not only human use but also the water needed to sustain plant and animal life.
N-4.5	Support the development a multi-faceted approach to ensure resilient supply and management of water in Palo Alto, during significant periods of drought.
N-4.6	Retain and utilize rainwater on site to the extent possible.
N-4.7	Ensure regulation of groundwater use to protect it as a natural resource and to preserve it as a potential water supply in the event of water scarcity.
N-4.8	Conserve and maintain subsurface water resources by exploring ways to reduce the impacts of residential basement dewatering and other excavation activities.
N-4.13	Encourage Low Impact Development (LID) measures to limit the amount of pavement and impervious surface in new development and increase the retention, treatment and infiltration of urban stormwater runoff. Include LID measures in major remodels, public projects and recreation projects where practical.
N-4.14	Improve storm drainage performance by constructing new system improvements where necessary.
N-4.15	Reduce the discharge of toxic materials into the City's sanitary sewer collection system by promoting the use of BMPs and reducing pollutant levels in City wastewater discharges.
N-4.16	Provide, maintain and operate wastewater treatment facilities, including maintaining adequate capacity at the Regional Water Quality Control Plant (RWQCP) located in Palo Alto, to accommodate projected economic and population growth. Ensure that the plant operates in compliance with applicable local, State, and federal clean water, clean air, and health and safety regulatory requirements.
N-4.17	Improve source control, treatment, and distribution of recycled water, including reducing the salinity of recycled water, to maximize its use.

Policy	Description
N-4.18	Require large new projects to provide systems that can accept recycled water for landscape irrigation and toilet and urinal flushing, consistent with the City's Recycled Water Ordinance, as amended.
S-3.8	Strive for 95 percent landfill diversion by 2030, and ultimately zero waste, by enhancing policies and programs for waste reduction, recycling, composting and reuse.
S-3.9	Reduce solid waste generation through requiring salvage and reuse of building materials, including architecturally and historically significant materials.

City of Palo Alto Municipal Code

Chapter 5.24, Deconstruction and Construction Materials Management

Pursuant to Section 5.24.040 of the City's Municipal Code, to obtain a deconstruction permit, a salvage survey must be conducted which identifies all potentially re-useable material as well as post-deconstruction verification of the recycling or reuse of the identified materials. A building permit application must also be submitted for each structure, and the applicant must obtain an approval from the BAAQMD on the permit application.

Chapter 12.32.010, Water Use Regulation

Chapter 12.32 of the City's Municipal Code prohibits certain water uses to avoid unnecessary water waste. The regulation includes the following provisions:

- Flooding or runoff of potable water is prohibited.
- A shut-off valve is required for hoses used to wash vehicles, sidewalks, buildings, etc.
- Potable water for construction uses is prohibited if non-potable water is available.
- Broken or defective plumbing and irrigation systems must be repaired or replaced within a reasonable period.

Chapter 12.32.040, Indoor and Outdoor Water Efficiency

Pursuant to the California Water Conservation in Landscaping Act, also known as the State Landscape Model Ordinance, Government Code Section 65591, et seq. as amended, a city is required to adopt the State Landscape Model Ordinance or equivalent local landscape water efficiency requirements that are "at least as effective" as the State ordinance in conserving water. The Palo Alto City Council has adopted requirements that are at least as effective in reducing landscaping water use, also known as outdoor water use, as well as additional requirements for existing landscapes and indoor water use in Municipal Code Chapter 16.14 (California Green Building Code).

Chapter 16.12 (Recycled Water) and 16.14 (Green Building)

Chapters 16.12 and 16.14 contain requirements related to recycled water, including new construction requirements related to dual plumbing and irrigation. Requirements in Chapter 16.12

include recycled permit requirements, as well as requirements for recycled water application for irrigation and toilet fixtures. Chapter 16.14 addresses the City's adoption of the 2013 California Green Building Standards, which require new buildings to reduce water consumption by 20 percent. On April 20, 2015, the Palo Alto City Council adopted an ordinance repealing and restating Palo Alto Municipal Code Chapter 16.14 to adopt and amend the 2013 California Green Building Standards Code, Title 24, Part 11 of the California Code of Regulations (CALGreen). The technical implications include more stringent requirements in the following areas: 1) "laundry-to-landscape ready" infrastructure for residential buildings; 2) water-efficient landscape strategies; and 3) CALGreen Residential Tier 1 and Tier 2 standards for new residential and residential alteration projects in lieu of the prior Build It Green framework.

3.13.1.2 *Existing Conditions*

Water Supply

The CPAU serves approximately 16,579 residential customers (meters) and approximately 4,029 non-residential customers.[93] The local distribution system includes 236 miles of water pipes.

Palo Alto purchases 100 percent of its potable water from the SFPUC. This water is delivered from the City and County of San Francisco's Regional Water System (RWS), operated by the SFPUC. This supply is predominantly from the Sierra Nevada, delivered through the Hetch Hetchy aqueducts, but also includes treated water produced by the SFPUC from its local watersheds and facilities in Alameda and San Mateo Counties.

Palo Alto entered into a Water Supply Agreement with the SFPUC in July 2009. The WSA has a 25-year term. Palo Alto's Individual Supply Guarantee (ISG) is 16.575 million gallons per day (MGD) (or 18,579 acre-feet/year [AFY]) through 2035.[94]

The water demand for existing uses in the NVCAP was calculated to be 160,688 gallons per day (gpd).[95]

The NVCAP area consists of existing water mains within the public streets (and between the dead end of Acacia Avenue and Park Boulevard), varying in size from six to 12 inches.

Wastewater Services

The CPAU oversees a wastewater collection system consisting of over 216 miles of sanitary sewer lines. The City operates and treats wastewater at the Palo Alto RWQCP, which has primary

[93] City of Palo Alto. Utilities at a Glance. Accessed February 16, 2023. https://www.cityofpaloalto.org/Departments/Utilities/Customer-Service/Utilities-at-a-Glance

[94] The City's ISG was reduced to this level in May 2018 upon a permanent ISG transfer of 0.5 MGD to the City of East Palo Alto.

[95] 142 dwelling units x 168 gpd plus 744,000 square feet office x 0.16 gpd plus 111,200 square feet retail x 0.16 gpd.

treatment (bar screening and primary sedimentation), secondary treatment (fixed film reactors, conventional activated sludge, clarification and filtration), and tertiary treatment (filtration through a sand and coal filter and UV disinfection). Wastewater is routed to RWQCP, where it is treated prior to discharge into the San Francisco Bay. The RWQCP treats 17 MGD of wastewater.[96]While the CPAU is responsible for the wastewater collection system, the Palo Alto Public Works Department is responsible for the collection/conveyance of sewage collected and delivered to the RWQCP.

The RWQCP has an average dry weather flow design capacity of 39 MGD (43,680 AF/Y) with full tertiary treatment, and a peak wet weather flow capacity of 80 MGD (89,600 AF/Y) with full secondary treatment. Year 2020 average flows are approximately 17.24 MGD (19,311 AF/Y).[97] The plant capacity is sufficient for current dry and wet weather loads and for future load projections. The RWQCP does not experience any major treatment system constraints and has no planned capacity expansions. Approximately 220,000 people live in the RWQCP service area. Of the wastewater flow to the RWQCP, about 60 percent is estimated to come from residences, 10 percent from industries, and 30 percent from commercial businesses and institutions. All the wastewater treated at the RWQCP can be recycled.

The NVCAP area consists of sanitary sewer mains within each public road and between the dead end of Portage Avenue and Park Boulevard. These existing sewer mains vary in size from six to 15 inches. There are also two parallel sewer mains in Olive Avenue (one 15-inch and one eight-inch), which connect to two parallel sewer mains in Park Avenue (one 12-inch and one 15-inch).

Existing wastewater generation for the NVCAP area was calculated to have an average base wastewater flow (ABWF) of approximately 151,000 gpd.[98]

Storm Drainage

The City's storm drainage system consists of over 107 miles of underground pipelines, 2,750 catch basins, 800 manholes, and eight pump stations.[99] The City's storm drain system is divided into three parts, the NVCAP area is contained within the Matadero Creek Watershed, which consists of 55 linear miles of pipe (greater than 12-inches in diameter) and four pump stations. The Matadero Creek Watershed drains to the San Francisco Bay.

Solid Waste

The City is currently contracted with GreenWaste of Palo Alto for collection of garbage, recycling and composting services through June 2030. Waste is collected and taken to the Greenwaste Recovery Facility at 625 Charles Street in San José. The Greenwaste Recovery Facility processes

[96] City of Palo Alto. Utilities at a Glance Fiscal Year 2020. Accessed February 16, 2023. https://www.cityofpaloalto.org/files/assets/public/utilities/uaag-final-2021-brochure-insertct.pdf
[97] City of Palo Alto. *200 Portage Avenue Townhome Project Draft EIR*. September 2022.
[98] BKF. North Ventura Coordinated Area Plan. Utilities and Infrastructure Analysis.
[99]City of Palo Alto. *Comprehensive Plan Update Final EIR for the City of Palo Alto*. State Clearinghouse (SCH) # 2014052101. August 30, 2017.

mixed garbage from Palo Alto and recovers recyclable and compostable materials that would have otherwise gone to landfill. Once materials are processed at the Greenwaste Recovery Facility, the residuals are taken to the Monterey Peninsula Landfill at 14201 Del Monte Boulevard in Marina.

The existing development within the NVCAP is estimated to generate approximately 1,500 tons of solid waste per year (or 8,220 pounds per day).[100]

Electricity

The CPAU provides 100 percent carbon-neutral electricity to approximately 25,876 residential customers and 3,973 commercial customers. CPAU operates approximately 330 miles of sub-transmission, underground distribution, and overhead distribution lines.[101]

Most of the existing electrical utilities within the NVCAP area run along Lambert Avenue and Park Boulevard to an existing substation (Park Boulevard Substation), at the corner of Park Boulevard and Lambert Avenue. The Park Boulevard Substation is not within the NVCAP area.

3.13.2 Impact Discussion

For the purpose of determining the significance of the project's impact on utilities and service systems, would the project:

1) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?
2) Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?
3) Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?
4) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?
5) Be noncompliant with federal, state, or local management and reduction statutes and regulations related to solid waste?

[100] California Emissions Estimator Model (CalEEMod) Version 2022.1.1.7. *North Ventura Coordinated Area Plan Existing (2023) and Proposed (2040) Custom Reports*. April 2023.
[101] City of Palo Alto. Utilities at a Glance Fiscal Year 2020. Accessed February 16, 2023. https://www.cityofpaloalto.org/files/assets/public/utilities/uaag-final-2021-brochure-insertct.pdf

3.13.2.1 *2030 Comprehensive Plan Update FEIR – Utilities and Service Systems Conclusions*

The 2030 Comprehensive Plan Update FEIR concluded that implementation of the 2030 Comprehensive Plan would result in less than significant utilities and service systems impacts. There would be sufficient water supplies available to serve the 2030 Comprehensive Plan build out without the need for new or expanded entitlements or new water facilities. Build out under the 2030 Comprehensive Plan would not prompt a need to expand treatment facilities or regional water system conveyance and storage facilities. While existing local distribution lines within the City may be undersized for future development, potential environmental impacts that could result from construction and operation of these pipeline improvements would be evaluated in project-specific environmental analyses. Development under the 2030 Comprehensive Plan would be subject to existing State, regional, and local regulations and procedures that would prevent potential impacts from the construction of new stormwater facilities or expansion of existing facilities. There are also landfills with sufficient permitted capacity to accommodate the solid waste generated from the Comprehensive Plan future development and solid waste would not be generated in excess of state or federal standards. The Comprehensive Plan policies and actions that promote recycling and conservation would also comply with federal, state, and local status and regulations related to solid waste.

3.13.2.2 *Project Impacts*

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

Water

Water demand for the NVCAP is estimated to be approximately 209,381 gpd, an increase of approximately 48,693 gpd (or 54.5 AFY) compared to existing conditions. As discussed in Section 3.13.1.2 Existing Conditions, existing water mains within the NVCAP area range from six to 12 inches. According to Utilities and Infrastructure Analysis prepared for the project, it is possible that the existing six-inch mains would not be able to provide sufficient flow and pressure to meet required fire demands and would need to be replaced with larger diameter pipes. Potential environmental impacts could result from construction and operation of these improvements; however, such impacts would be project-specific. Any new or expanded local water distribution facilities would require permits from the City and review in accordance with CEQA, which would ensure environmental impacts are disclosed and mitigated.

Wastewater

Future redevelopment under the NVCAP would be served by the existing sanitary sewer system and connect to existing sanitary sewer mains within the public roads. Wastewater demand for the NVCAP is estimated to be approximately 192,975 gpd, an increase of approximately 41,975 gpd (or

47 AFY) compared to existing conditions. The City of Palo Alto's Wastewater Map shows that there will be upgrades to existing sanitary sewer mains along the NVCAP perimeter, in El Camino Real, Page Mill Road and Lambert Avenue. According to the City of Palo Alto Wastewater Capital Improvements Plan 2016-2020, improvements to the existing wastewater infrastructure around the site were implemented in 2018. In the event that insufficient capacity exists to serve future development, individual projects would need to prepare a flow monitor study to determine the remaining capacity and may be required to upsize sewer mains as part of the public improvements for their project, which could extend beyond the immediate vicinity of the project frontage. Any sewer infrastructure improvements required to serve specific development sites would require permits from the City and review in accordance with CEQA, which would ensure environmental impacts are disclosed and mitigated. Refer to checklist question c) below for a discussion of the availability of treatment capacity at the RWQCP for the project.

Storm Drain System

The project proposes to create an approximately two-acre public open space (Matadero Park), along with the renaturalization of Matadero Creek through the establishment of a 100-foot riparian buffer. As a result, implementation of the project would result in a net reduction of impervious surfaces. This net decrease in impervious surfaces would result in a corresponding decrease in stormwater runoff. Further, future redevelopment under the NVCAP would be subject to Provision C.3 of the MRP, which requires implementation of stormwater treatment measures that would collect and treat stormwater runoff from all on-site impervious areas prior to discharge into the City's storm drain system. As a result, the existing storm drainage system would continue to be able to accommodate runoff from the project sites. Therefore, the NVCAP would not require the construction or relocation of storm drainage facilities, aside from the lateral connections to the existing lines.

Electrical Power, Natural Gas, and Telecommunications

The 2030 Comprehensive Plan Update FEIR concluded that build out under the Comprehensive Plan would not increase electrical demands within the service territory to an extent that would require new local electrical supply facilities. Where new generation, transmission, and/or distribution infrastructure is required to serve the CPAU service territory in general, these projects would be subject to separate environmental review and would be required to comply with applicable regulations for construction projects, including construction permits/review for construction within public rights-of-way (e.g., grading permits, private development review, encroachment permits, etc.).

Future development under the NVCAP would coordinate with the appropriate electric power, natural gas, and telecommunication providers, including CPAU, on providing service to the site. In addition, future development would be subject to the City's 2022 Energy Reach Code, which requires percent electrification for all residential and non-residential projects.

Existing utility lines would be utilized by development under the NVCAP for electric power, natural gas, and telecommunications services. Connecting to the City's energy and communications grid

would require trenching on the site, which would not require substantial excavation and would result in minimal impacts. Future development projects would be required to detail the exact locations for all utility connections and utility plans would be subject to review by the City. The proposed project would not result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities. **[Same Impact as Approved Project (Less Than Significant Impact)]**

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

The 2030 Comprehensive Plan Update FEIR concluded that there were sufficient water supplies from existing entitlements to serve build out under the Comprehensive Plan through 2035 under normal year conditions and during single- and multiple-dry years.

Water demand for the NVCAP is estimated to be approximately 209,381 gpd, an increase of approximately 48,693 gpd (or 54.5 AFY). The City has an ISG from the SFPUC of 16.575 MGD (or 18,579 AFY). According to the City's UWMP, demand is projected to remain below the ISG through 2045 during normal year conditions.[102] Under single dry year and multiple dry year conditions, overall water supply would be reduced, and the City would require implementation of water reduction measures to reduce water use by approximately 35 percent. For these reasons, the project would have sufficient water supplies available during normal, dry, and multiple-dry years. **[Same Impact as Approved Project (Less Than Significant Impact)]**

c) Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Future development under the NVCAP would dispose of wastewater at the RWQCP. The project would increase wastewater generation approximately 41,975 gpd (or 47 AFY) compared to existing conditions. The 2030 Comprehensive Plan Update FEIR concluded that existing RWQCP facilities would provide adequate capacity to meet dry weather and maximum month flows through at least 2035 and beyond. According to the City's Long-Range Facilities Plan for the RWQCP, the RWQCP would have at least five MGD of excess capacity in 2062. The NVCAP's increase in wastewater represents approximately 0.8 percent of the RWQCP's excess capacity. For these reasons, the NVCAP would not result in a determination by the wastewater treatment provider that it does not have adequate capacity to serve the project's projected demand. **[Same Impact as Approved Project (Less Than Significant Impact)]**

[102] City of Palo Alto. *Urban Water Management Plan and Water Shortage Contingency Plan*. June 2021.

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

The development of up to 531 additional dwelling units is estimated to generate approximately 1,520 tons of solid waste per year (or 8,330 pounds per day).[103] While new commercial space is expected in the NVCAP area, there would be an overall net decrease in commercial space compared to existing conditions with build out of the NVCAP to accommodate the new residential dwellings. The NVCAP would result in a net reduction of up to 278,000 square feet of office and up to 7,500 square feet of retail. As a result, future development in the NVCAP would result in a slight increase (110 pounds per day) in solid waste generation compared to existing conditions. As mentioned previously, the City is contracted to dispose of solid waste at Monterey Peninsula Landfill through 2030.

Future development proposed under the NVCAP area would be required to comply with the City's requirements to reduce the volume of solid waste through recycling and reuse of solid waste. The Comprehensive Plan includes policies that promote recycling and conservation to ensure adequate waste collection and disposal facilities for the residents and workers of Palo Alto and to minimize solid waste generation for disposal. In addition, all projects in the City are required to recycle or salvage for reuse a minimum of 80 percent of the non-hazardous construction and demolition debris.

Future developments proposed under the NVCAP would be required to comply with existing federal, state, and local programs and regulations, and there would be sufficient landfill capacity to serve the proposed project. Therefore, the project would not exceed the capacity of local landfills that serve Santa Clara or exceed state or local standards. **[Same Impact as Approved Project (Less Than Significant Impact)]**

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

Future development under the NVCAP would be required to comply with existing federal, state, and local regulations and programs pertaining to solid waste, including AB 939, AB 341, CALGreen, and the City's Municipal Code requirements for construction and demolition debris. Therefore, the NVCAP would have a less than significant impact on solid waste. **[Same Impact as Approved Project (Less Than Significant Impact)]**

[103] California Emissions Estimator Model (CalEEMod) Version 2022.1.1.7. *North Ventura Coordinated Area Plan Existing (2023) and Proposed (2040) Custom Reports*. April 2023.

3.13.2.3 *Cumulative Impacts*

Would the project result in a cumulatively considerable contribution to a cumulatively significant utilities and service systems impact?

The geographic study area for cumulative impacts to utilities and service systems is within the applicable utility's service area.

Relocation or Construction of New or Expanded Facilities

Water Facilities

The geographic area for cumulative water system impacts is the area serviced by the same water lines as the NVCAP sites. Cumulative projects (including the NVCAP) would be required to demonstrate that adequate water quantity, quality and distribution could be provided. Potential environmental impacts could result from construction and operation of these improvements; however, such impacts would be project-specific. Any new or expanded local water distribution facilities would require permits from the City and review in accordance with CEQA, which would ensure environmental impacts are disclosed and mitigated to the extent possible. For this reason, the project would not contribute to a significant cumulative impact on water facilities.

Wastewater

The geographic area for cumulative wastewater system impacts is the area serviced by the same water lines as the NVCAP sites. If insufficient capacity exists to serve future cumulative development, individual projects (including under the NVCAP) would need to prepare a flow monitor study to determine the remaining capacity and may be required to upsize sewer mains as part of the public improvements for their project, which could extend beyond the immediate vicinity of the project frontage. Any sewer infrastructure improvements required to serve specific development sites would require permits from the City and review in accordance with CEQA, which would ensure environmental impacts are disclosed and mitigated to the extent possible. For this reason, the project would not contribute to a significant cumulative impact to the wastewater system.

Storm Drainage

The geographic area for cumulative storm drain system impacts are the areas upstream and downstream of the NVCAP. Implementation of the project would result in a net reduction of impervious surfaces. This net decrease in impervious surfaces would result in a corresponding decrease in stormwater runoff. Future cumulative development (including the NVCAP) would be subject to Provision C.3 of the MRP, which requires implementation of stormwater treatment measures that would collect and treat stormwater runoff from all onsite impervious areas prior to discharge into the City's storm drain system. Therefore, the project would not contribute to a significant cumulative impact to storm drainage facilities.

Electric Power, Natural Gas, and Telecommunications

Future cumulative development (including the NVCAP) would coordinate with the appropriate electric power, natural gas, and telecommunication providers, including CPAU, on providing service to the site. In addition, future cumulative development would be subject to the City's 2022 Energy Reach Code, which requires percent electrification for all residential and non-residential projects. Future cumulative development projects (including the NVCAP) would be required to detail the exact locations for all utility connections and utility plans would be subject to review by the City. The proposed project would not contribute to a cumulatively considerable impact on electric power, natural gas, or telecommunications utilities.

Water Supply

The geographic area for cumulative water supply is the service area of CPAU. The 2030 Comprehensive Plan Update FEIR concluded that there were sufficient water supplies from existing entitlements to serve build out under the Comprehensive Plan through 2035 under normal year conditions and during single- and multiple-dry years. The City has an ISG from the SFPUC of 16.575 MGD (or 18,579 AFY). According to the City's UWMP, demand is projected to remain below the ISG through 2045 during normal year conditions.[104] Under single dry year and multiple dry year conditions, overall water supply would be reduced, and the City would require implementation of water reduction measures to reduce water use by approximately 35 percent. Future cumulative development projects would be reviewed to ensure adequate water supply is available to serve the proposed development. Therefore, the project would not contribute to a significant cumulative impact to water supply.

Wastewater Treatment Capacity

The geographic area for cumulative wastewater treatment is the service area of the RWQCP. The 2030 Comprehensive Plan Update FEIR concluded that existing RWQCP facilities would provide adequate capacity to meet dry weather and maximum month flows through at least 2035 and beyond. According to the City's Long-Range Facilities Plan for the RWQCP, the RWQCP would have at least five MGD of excess capacity in 2062. Therefore, the project would not contribute to a significant cumulative impact to wastewater treatment capacity.

Solid Waste

Future cumulative development (including the NVCAP) would be required to comply with the City's requirements to reduce the volume of solid waste through recycling and reuse of solid waste. In addition, all future construction projects would be required to recycle or salvage for reuse a minimum of 80 percent of the non-hazardous construction and demolition debris. Adherence to existing federal, state, and local programs and regulations would ensure that sufficient landfill capacity is available to serve cumulative development. Therefore, the NVCAP would not contribute to a cumulative solid waste impact.

[104] City of Palo Alto. *Urban Water Management Plan and Water Shortage Contingency Plan*. June 2021.

As described above, the NVCAP would not result in a cumulatively considerable contribution to a significant cumulative utilities and service systems impact. **[Same Impact as Approved Project (Less than Significant Cumulative Impact)]**

Section 4.0 Growth-Inducing Impacts

Would the project foster or stimulate significant economic or population growth in the surrounding environment?

The CEQA Guidelines require that an EIR identify the likelihood that a proposed project could "foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment" (Section 15126.2[d]). This section of the SEIR is intended to evaluate the impacts of such growth in the surrounding environment.

A project can have direct and/or indirect growth-inducement potential. Direct growth inducement results if a project involves construction of new housing that would result in new residents moving to the area. A project can have indirect growth-inducement potential if it establishes substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises) or if it involves a substantial construction effort with substantial short-term employment opportunities and indirectly stimulates the need for additional housing and services to support the new employment demand. Similarly, under CEQA, a project could indirectly induce growth if it expands roadway capacity or removes an obstacle to additional growth and development, such as removing a constraint on required public services or utilities (e.g., adding a sewage treatment plant that has capacity to serve demand beyond the associated project).

The NVCAP is an "infill" project, meaning that the NVCAP area is within the City's existing boundaries, already served by existing infrastructure, and planned for urban uses. Redevelopment of the NVCAP area was envisioned as part of the City's 2030 Comprehensive Plan Update. Comprehensive Plan Policy L-1.7 and Program L-4.10 calls for the preparation of a plan for the North Ventura and surrounding California Avenue area. The intent is to establish the future of the North Ventura area as a walkable neighborhood with multi-family housing, ground-floor retail, a public park, creek improvements, and an interconnected street grid. Full build out of the NVCAP would result in the construction of up to 530 residential units and approximately two acres of new public open space within the NVCAP area. While new commercial space is expected in the NVCAP area, there would be an overall net decrease in commercial space compared to existing conditions with build out of the NVCAP to accommodate the new residential dwellings. The NVCAP would result in a net reduction of up to 278,000 square feet of office and up to 7,500 square feet of retail.

There are no undeveloped areas adjacent or in the immediate vicinity of the NVCAP area and the NVCAP would not remove any obstacles that would help facilitate additional growth that could significantly affect the physical environment. The NVCAP does not include the expansion of existing infrastructure that would facilitate growth in the NVCAP area or other areas of the City. Therefore, the NVCAP would not result in growth-inducing impacts beyond what was envisioned in the City's 2030 Comprehensive Plan. **(Less than Significant Impact)**

Section 5.0 Significant and Irreversible Environmental Changes

Pursuant to CEQA Guidelines Section 15126.2(d), an EIR must identify significant irreversible environmental changes that would be caused by the proposed project being analyzed. Significant irreversible changes include the 1) irreversible use of nonrenewable resources, 2) commitment of future generations to similar use, and 3) irreversible damage resulting from environmental accidents associated with the project.

5.1 Irreversible Use of Nonrenewable Resources

Future development under the NVCAP would require the use of nonrenewable construction material, such as concrete, metals, plastics, and glass. Nonrenewable resources and energy would also be consumed during the manufacturing and transportation of building materials, preparation of the sites, and construction of the buildings. The operational phases would consume energy for multiple purposes including building heating and cooling, lighting, appliances, and electronics. Energy, in the form of fossil fuels, would be used to fuel vehicles traveling to and from the NVCAP area.

As discussed in Section 3.5 Energy, build out of the NVCAP would decrease consumption of electricity, natural gas, and gasoline, due to increases in building efficiency, prohibitions on natural gas infrastructure, and improvements in fuel economy, respectively. In addition, future development under the NVCAP would be compliant with Title 24 and CALGreen. Palo Alto provides 100 percent carbon neutral natural gas and electricity, and therefore future development would be consistent with the Renewables Portfolio Standard Program and Executive Order B-55-18. For these reasons, the NVCAP would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources.

5.2 Commitment of Future Generations to Similar Use

Future development under the NVCAP would commit resources to prepare the sites, construction the buildings, and operate the buildings. Future development would occur on in-fill sites that are already developed. Implementation of the NVCAP would not result in other land use changes in the surrounding area. As discussed previously, the City has proposed the NVCAP in accordance with the Palo Alto Municipal Code Section 19.10 and the Palo Alto 2030 Comprehensive Plan Policy L-1.7 and Program L-4.10, which specifically calls for the preparation of a plan for the North Ventura and surrounding California Avenue area. As part of the NVCAP, the Comprehensive Plan would be amended to include new NVCAP land use classifications and zoning districts (refer to Section 2.0 Project Information and Description). For these reasons, the NVCAP would not commit future generations to changes in land use.

5.3 Irreversible Damage Resulting from Environmental Accidents Associated with the Project

The purpose of the NVCAP is to establish the future of the North Ventura area as a walkable neighborhood with multi-family housing, ground-floor retail, a public park, creek improvements, and an interconnected street grid. The NVCAP does not propose any new or uniquely hazardous uses, and its operation would not be expected to cause environmental accidents that would impact other areas. As discussed in Section 3.7 Hazards and Hazardous Materials, soil, soil vapor, and groundwater within the NVCAP area is potentially contaminated with VOCs, petroleum hydrocarbons, and metals, and there is documented contamination of subsurface groundwater and soil vapor with the chlorinated solvents PCE and TCE. Future development within the NVCAP area could encounter and disturb contaminated soil, soil vapor, and groundwater, and result in adverse effects on construction workers, existing residents and employees, and nearby sensitive receptors. All future development (prior to the issuance of any permits allowing ground-disturbing activities that could encounter contaminated soil, soil vapor, and groundwater) would be required to demonstrate compliance with the aforementioned regulations and processes, and applicants would be required to remediate any subsurface contamination to the satisfaction of the DTSC prior to development. Additionally, all dewatering activities, including the dewatering of contaminated groundwater, would be conducted in accordance with the requirements of the RWQCB and the City's Municipal Code, which would ensure that contaminated groundwater is disposed of properly and is not discharged into the storm drain system. Consistent with the findings of the 2030 Comprehensive Plan Update FEIR, adherence with the aforementioned regulations and processes would ensure that future development under the NVCAP does not create a significant hazard to the public or environment. In addition, there are no significant geology and soils impacts from implementation of the NVCAP. Based on the discussion above, future developments proposed under the NVCAP would not result in irreversible damage that may result from environmental accidents.

Section 6.0 Significant and Unavoidable Impacts

A significant unavoidable impact is an impact that cannot be mitigated to a less than significant level if the Project is implemented as it is proposed. The following significant and unavoidable impacts have been identified as resulting from the Project:

- **Impact AIR-1 and Impact AIR-C:** Build out of the NVCAP would increase VMT and daily trips by six and 12.2 percent, respectively, and increase the service population by 4.1 percent. Since the increase in population would be exceeded by the increase in VMT and daily trips, the NVCAP would have a significant criteria air pollutant emissions impact.
- **Impact CUL-1 and CUL-C:** Future projects proposed under the North Ventura Coordinated Area Plan could result in the demolition of historic buildings, including yet identified historic resources as defined in CEQA Guidelines Section 15064.5.

Section 7.0 Alternatives

CEQA requires that an EIR identify alternatives to a project as it is proposed. The CEQA Guidelines specify that the EIR should identify alternatives which "would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project." The purpose of the alternatives discussion is to determine whether there are alternatives of design, scope, or location which would substantially lessen the significant impacts, even if those alternatives "impede to some degree the attainment of the project objectives" or are more expensive (CEQA Guidelines Section 15126.6).

In order to comply with the purposes of CEQA, it is important to identify alternatives that reduce the significant impacts anticipated to occur if the project is implemented and try to meet as many of the project's objectives as possible. The CEQA Guidelines emphasize a commonsense approach – the alternatives should be reasonable, "foster informed decision making and public participation," and focus on alternatives that avoid or substantially lessen the significant impacts. The range of alternatives selected for analysis is governed by the "rule of reason" which requires the EIR to discuss only those alternatives necessary to permit a reasoned choice. An EIR is not required to consider alternatives which are infeasible.

The three critical factors to consider in selecting and evaluating alternatives are, therefore: (1) the significant impacts from the proposed project which could be reduced or avoided by an alternative, (2) the project objectives, and (3) the feasibility of the alternatives available. These factors are discussed below.

7.1 Factors in Selecting Alternatives

7.1.1 Significant Impacts of the Project

As explained above, the CEQA Guidelines Section 15126.6 states that the alternatives analysis in an EIR should be limited to alternatives that are feasible and would avoid or substantially lessen any of the significant effects of the project and achieve most of the basic project objectives. Potentially significant environmental impacts that would result from the proposed Project are evaluated in Chapter 3.0, Environmental Setting, Impacts, and Mitigation Measures, of this SEIR. As discussed throughout this SEIR, with implementation of existing Comprehensive Plan policies and standard requirements, many of the potentially significant impacts resulting from the project would be reduced to a less-than-significant level. The following impacts listed below and summarized in Section 6.0 Significant and Unavoidable Impacts would remain significant and unavoidable, and the alternatives evaluated in this SEIR have been selected because they are anticipated to reduce and/or eliminate one or more of the significant impacts associated with the project.

- **Impact AIR-1 and Impact AIR-C:** Build out of the NVCAP would increase VMT and daily trips by six and 12.2 percent, respectively, and increase the service population by 4.1 percent.

Since the increase in population would be exceeded by the increase in VMT and daily trips, the NVCAP would have a significant criteria air pollutant emissions impact.

- **Impact CUL-1 and CUL-C:** Future projects proposed under the North Ventura Coordinated Area Plan could result in the demolition of historic buildings, including yet identified historic resources as defined in CEQA Guidelines Section 15064.5.

7.1.2 Project Objectives

While CEQA does not require that alternatives must be capable of meeting all of the project objectives, their ability to meet most of the basic objectives is considered relevant to their consideration. As identified in Section 2.4 Project Objectives, the objectives for the project are as follows:

1) **Housing and Land Use.** Add to the City's supply of multifamily housing, including market rate, affordable, "missing middle," and senior housing in a walkable, mixed-use, transit-accessible neighborhood, with retail and commercial services, open space, and possibly arts and entertainment uses.
2) **Transit, Pedestrian, and Bicycle Connections.** Create and enhance well-defined connections to transit, pedestrian, and bicycle facilities, including connections to the Caltrain Station, Park Boulevard, and El Camino Real.
3) **Connected Street Grid.** Create a connected street grid, filling in sidewalk gaps and street connections to California Avenue, the Caltrain Station, and El Camino Real where appropriate.
4) **Community Facilities and Infrastructure.** Carefully align and integrate development of new community facilities and infrastructure with private development, recognizing both the community's needs and that such investments can increase the cost of housing.
5) **Balance of Community Interests.** Balance community-wide objectives with the interests of neighborhood residents and minimize displacement of existing residents.
6) **Urban Design, Design Guidelines, and Neighborhood Fabric.** Develop human-scale urban design strategies, and design guidelines that strengthen and support the neighborhood fabric. Infill development will respect the scale and character of the surrounding residential neighborhood.
7) **Sustainability and the Environment.** Protect and enhance the environment, while addressing the principles of sustainability.
8) **Data-Driven Approach.** Employ a data-driven approach that considers community desires, market conditions and forecasts, financial feasibility, existing uses and development patterns, development capacity, traffic and travel patterns, historic/cultural and natural resources, need for community facilities (e.g., schools), and other relevant data to inform plan policies.
9) **Comprehensive User-Friendly Document and Implementation.** Create a comprehensive but user-friendly document that identifies the distribution, location and extent of land uses, planning policies, development regulations, and design guidelines to enable development and needed infrastructure investments in the project area.

10) **Guide and Strategy for Staff and Decision Makers.** Provide a guide and strategy for staff and decision-makers to bridge the gap between the goals and policies of the Comprehensive Plan and individual development projects in order to streamline future land use and transportation decisions.
11) **Meaningful Community Engagement.** Enable a process with meaningful opportunities for community engagement, within the defined timeline, and an outcome (the NVCAP document) that reflects the community's priorities.
12) **Economic Feasibility.** A determination of the economic and fiscal feasibility of the plan with specific analysis of marketplace factors and incentives and disincentives, as well as a cost-benefit analysis of public infrastructure investments and projected economic benefits to the City and community.
13) **Environmental.** A plan that is protective of public health and a process that complies with the requirements of the California Environmental Quality Act.

7.1.3 Feasibility of Alternatives

CEQA, the CEQA Guidelines, and case law interpreting CEQA and the CEQA Guidelines have found that feasibility can be based on a wide range of factors and influences. The CEQA Guidelines state that such factors can include (but are not necessarily limited to) the suitability of an alternate site, economic viability, availability of infrastructure, consistency with a general plan or with other plans or regulatory limitations, jurisdictional boundaries, and whether the project proponent can "reasonably acquire, control or otherwise have access to the alternative site (Section 15126.6[f][1])."

7.2 Project Alternatives

7.2.1 Project Alternatives Considered But Rejected from Further Analysis

7.2.1.1 *Location Alternative*

In considering an alternative location in an EIR, the CEQA Guidelines advise that the key question is "whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location".[105]

Location alternatives are frequently considered to reduce the site-specific impacts of a project. A Location Alternative would need to be of similar size to the NVCAP area (approximately 60 acres), within the urban service area of the City, near existing transit, and have the appropriate General Plan land use designation(s). The City proposes the NVCAP in accordance with the Palo Alto Municipal Code Section 19.10 and the Palo Alto 2030 Comprehensive Plan Policy L-1.7 and Program L-4.10, which specifically calls for the preparation of a plan for the North Ventura and surrounding

[105] CEQA Guidelines Section 15126.6(f)(2)(A)

California Avenue area in order to establish the future of the North Ventura area as a walkable neighborhood with multi-family housing, ground-floor retail, a public park, creek improvements, and an interconnected street grid.

The Location Alternative was not considered further because Comprehensive Plan Policy L-1.7 and Program L-4.10, explicitly require preparation of a plan for the North Ventura area.

7.2.1.2 *Preservation Alternative*

Under this Alternative, the 340 Portage Avenue property would be preserved and reused in a manner that does not result in any alterations that would compromise the historic integrity of the building. Under this alternative, it is assumed that the building would be limited to existing uses (i.e., retail) since there are very few uses that could utilize the building as it currently is.

Even so, it is possible that new retail uses would require some tenant improvements that could in turn cause building code updates that would necessitate alterations to the building that may or may not done in conformance with Secretary of the Interior Standards for Treatment of Historic Properties and in accordance with the California Historic Building Code. Further, the existing uses are currently nonconforming and would require comprehensive plan amendments and rezoning to allow non-housing uses. This would be inconsistent with the goals and policies of the City's Comprehensive Plan, which seeks to add to the City's supply of housing.

While this alternative may avoid impacts to historic resources assuming no alterations would be needed, it would result in similar significant unavoidable air quality impacts since the 2030 Comprehensive Plan Update FEIR concluded that build out under the Comprehensive Plan would result in significant and unavoidable criteria air pollutants emissions. This alternative would also not support the goals and policies of the Comprehensive Plan because housing would not be developed at the site. While this alternative would potentially avoid impacts to the 340 Portage Avenue property, it is possible that implementation of the NVCAP could directly or indirectly affect yet to be identified historic resources. Therefore, the Preservation Alternative would not guarantee avoidance of all potential impacts to historic resources (including yet to be identified resources). Ultimately, this alternative was not considered further because it would be inconsistent with the City's Comprehensive Plan and would result in a non-conforming use on the site.

7.2.1.3 *Increased Service Population Alternative*

An Increased Service Population Alternative was considered to reduce the project's significant and unavoidable criteria pollutant emissions and precursor impact. Pursuant to BAAQMD's plan-level thresholds, plans that would increase VMT at a rate that would exceed the rate of population increase, are considered to have a significant and unavoidable criteria air pollutant emissions and precursor impact. Under this alternative, the increase in service population would need to exceed the increase in VMT and daily trips. This could be achieved by increasing the overall density of the NVCAP's zoning districts, which would require increased floor area ratios and building heights. As the Plan's service population increases so too would VMT; therefore, it would be difficult to determine what-service population increase would be needed to result in an increase in VMT at a

rate that would not exceed the rate of the population increase. Increasing density and thereby increasing the Plan's service population could, however, result in greater GHG emissions, more demand on public services and utilities, increased aesthetics impacts, and potential land use conflicts. Further, future development under the NVCAP would be subject to BAAQMD's project-level thresholds and screening criteria and would not preclude the finding of less than significant criteria pollutant emissions impacts.[106] So while the NVCAP would result in a plan-level impact, future development would likely result in less than significant project-level impacts. While this alternative would potentially eliminate the plan-level criteria pollutant emissions impact, it would result in greater impacts to other resource areas. Ultimately this alternative was not considered further.

7.2.2 Selected Alternatives

7.2.2.1 *Alternative 1: No Project Alternative*

The CEQA Guidelines specifically require consideration of a "No Project" Alternative. The purpose of including a No Project Alternative is to allow decision makers to compare the impacts of approving the project with the impacts of not approving the project. The Guidelines specifically advise that the No Project Alternative is "what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services." The Guidelines emphasize that an EIR should take a practical approach, and not "…create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment (Section 15126.6[e][3][B])."

The NVCAP area is currently developed with 142 residential units, 744,00 square feet of office, and 111,200 square feet of retail. The No Project Alternative assumes that the NVCAP Area would remain as developed today.

Comparison of Environmental Impacts

A summary comparison of the environmental impacts of the NVCAP and the No Project Alternative is provided in Table 7.2-1 below. Under the No Project Alternative, no new development would occur. Existing uses would continue to generate criteria pollutant emissions from landscaping fuel, consumer projects, vehicles trips, and energy use. However, the same level of growth would not occur under this alternative, therefore, the impact would be slightly reduced. Regardless, the 2030 Comprehensive Plan Update FEIR concluded that build out under the Comprehensive Plan would result in significant and unavoidable criteria air pollutants emissions. Therefore, the No Project Alternative would contribute to the same significant and unavoidable air quality impact.

Under the No Project Alternative, no new development would occur and in turn construction-related impacts associated with migratory and nesting birds, construction noise, construction air

[106] Per BAAQMD's operational criteria pollutant screening criteria, a 421-unit single-family subdivision would result in less than significant criteria pollutant emissions impacts.

quality, and tribal cultural resources would be avoided. Under the No Project Alternative, existing uses would remain and continue to generate GHG emissions associated with energy and water use and waste generation. Existing uses would generate less vehicle trips compared to the NVCAP, which would in turn reduce GHG emissions.

Under the No Project Alternative, there would be no new development. The demolition or alteration of historic resources (including any structures at the 340 Portage Avenue property) would not occur. As a result, impacts to historic resources would be avoided.

Relationship to Project Objectives

The No Project Alternative would not meet any of the NVCAP's objectives to establish the future of the North Ventura area as a walkable neighborhood with multi-family housing, ground-floor retail, a public park, creek improvements, and an interconnected street grid. The No Project Alternative would conflict with the Palo Alto 2030 Comprehensive Plan Policy L-1.7 and Program L-4.10, which calls for the preparation of a plan.

Conclusions

The 2030 Comprehensive Plan Update FEIR concluded that build out under the Comprehensive Plan would result in significant and unavoidable criteria air pollutants emissions. The No Project Alternative would contribute to similar air quality impacts as the proposed project. As noted above, existing uses would remain and continue to generate GHG emissions. However, the No Project Alternative would have less vehicle trips compared to the NVCAP and would thereby reduce GHG emissions compared to the project. The No Project Alternative would avoid demolition/alteration of historic buildings and would avoid the NVCAP's significant and unavoidable impact to historic resources. As previously stated, the No Project Alternative would not meet any of the project's objectives. Further, the No Project Alternative would conflict with the Palo Alto 2030 Comprehensive Plan Policy L-1.7 and Program L-4.10, which calls for the preparation of a plan.

7.2.2.2 *Alternative 2: Single-Story Adaptive Reuse Alternative*

As discussed in Section 3.4.1.2, the 340 Portage Avenue property is eligible for listing on the CRHR under Criterion 1 (Events) for its association with the history of the canning industry in Santa Clara County; it is therefore a historical resource under CEQA. Under the Single-Story Adaptive Reuse Alternative, the eligible historical resource at 340 Portage Avenue would remain. The interior of the building would be developed with 113 residential units. No additional floors would be added to the building. [107] [108]

[107] City of Palo Alto. *200 Portage Avenue Townhome Project Revised Final Environmental Impact Report/Responses to Comments on the Draft EIR*. SCH# 2021120444. May 2023. Attachment B.
[108] Refer to response 3.8 in the Revised Final Environmental Impact Report/Responses to Comments Document for the 200 Portage Avenue Townhome Project (dated May 2023).

Comparison of Environmental Impacts

A summary comparison of the environmental impacts of the NVCAP and the Single-Story Adaptive Reuse Alternative is provided in Table 7.2-1 below. The NVCAP assumes that the 340 Portage Avenue property would remain, would be increased in height to three stories, and the interior of the building would be developed with 281 residential units and 7,400 sf of retail. To accommodate this proposed density, the cannery building would be modified with the addition of at least two stories and would require substantial modifications to the existing structure, which would not be consistent with the Secretary of the Interiors Standards. Under the Single-Story Adaptive Reuse Alternative, the reduction of the building to one story would reduce the overall modifications t in comparison to the proposed project and help retain a character defining features of the building, the monitor roofs. However, even a single-story alternative would not be expected to eliminate the significant historic resources impact, due to the significant revisions would be necessary to meet life safety requirements and provide viable residential units. Any reuse of the structure for residential units, regardless of how many stories tall the structure would be, would require that all four walls of the building exterior be modified through the introduction of window and door openings to accommodate conversion to residential use and meet residential ingress/egress building code requirements. The large open interior of the building would also have to be modified by adding light wells to provide access to light and air for all units and demised to create individual units, where the Secretary of the Interior's standards would discourage subdividing the building into smaller spaces. Further, to accommodate residential uses, substantial structural upgrades would be required. Additional kitchens and bathrooms would be required for residential use, such that plumbing and electrical systems would need major upgrades to supply electricity and water. Other major upgrades would be needed for ventilation and insulation and to meet current green building and ADA requirements. It should also be noted that the building, though recommended eligible, is not currently listed in the CRHR and is therefore not eligible for historic exemptions under the California Historic Building Code. Because of the extent of work required to convert the building to residential uses and comply with building code requirements, even if the site were to be listed in the CRHR and therefore could be eligible for certain exemptions for required upgrades, adaptation of the building could not occur without altering the character-defining features. Therefore, a significant and unavoidable impact to historical resources would still be expected to result from the Single-Story Adaptive Reuse Alternative.

The 2030 Comprehensive Plan Update FEIR concluded that build out under the Comprehensive Plan would result in significant and unavoidable criteria air pollutants emissions. Under this alternative, the 340 Portage site would be developed with 168 fewer residential units and would result in a service population reduction of 405 people compared to the NVCAP. This would result in a service population reduction compared to existing conditions.[109] Since VMT from new development would still increase under this alternative, the decrease in population would be exceeded by the increase in VMT and daily trips. Therefore, the Single-Story Adaptive Reuse Alternative would contribute to

[109] The NVCAP would result in service population of 3,743. Under this Alternative, the service population would be reduced to 3,338 which is less than the existing service population of 3,597.

the same significant and unavoidable air quality impact. This would result in a slight reduction in GHG emissions.

Under the Single-Story Adaptive Reuse Alternative, development in the NVCAP would have the same potential construction-related impacts to migratory and nesting birds, construction air quality and noise, and tribal cultural resources and would be required to implement the same mitigation measures as the project.

Relationship to Project Objectives

The Single-Story Adaptive Reuse Alternative would meet all of the project objectives. However, the alternative would provide less residential units than the proposed project and would therefore be only partially consistent with Objective 1.

Conclusions

The Single-Story Adaptive Reuse Alternative would result in similar air quality impacts as the proposed project and slightly reduced GHG emissions compared to the project. The Single-Story Adaptive Reuse Alternative would result in the same construction-related impacts to migratory and nesting birds, construction air quality and noise, and tribal cultural resources and would be required to implement the same mitigation measures as the project. While this alternative would reduce modifications to the cannery building and would retrain the monitor roof, any reuse of the building would alter the character-defining features. Therefore, consistent with the project, this alternative would result in a significant and unavoidable impact on historical resources.

7.2.2.3 *Environmentally Superior Alternative*

The CEQA Guidelines state that an EIR shall identify an environmentally superior alternative. If the environmentally superior alternative is the "No Project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives (Section 15126.6(e)(2)). The environmentally superior alternative would be Alternative 1: No Project Alternative, which would avoid the identified significant impacts to historic resources. This alternative would not meet any of the City's objectives. Beyond the No Project Alternative, Alternative 2: Single-Story Adaptive Reuse Alternative would be the environmentally superior alternative. As noted above, this alternative would meet all of the project objectives. The Single-Story Adaptive Reuse Alternative would result in slightly reduced GHG emissions. However, this alternative would not substantially reduce the other environmental impacts of the project. As noted above, modifications to the cannery building would retrain the monitor roof, any reuse of the building would alter the character-defining features. Therefore, consistent with the project, this alternative would result in a significant and unavoidable impact on historical resources.

Table 7.2-1: Comparison of Impacts from Alternatives to the Proposed Project

Impacts	Proposed Project	Alternative 1: No Project	Alternative 2: Single-Story Adaptive Reuse
Impact AIR-1: Build out of the NVCAP would increase VMT and daily trips by six and 12.2 percent, respectively, and increase the service population by 4.1 percent. Since the increase in population would be exceeded by the increase in VMT and daily trips, the NVCAP would have a significant criteria air pollutant emissions impact.	SU	SU	SU
Impact BIO-1: Construction activities associated with build out of the NVCAP could result in the loss of fertile eggs, nesting raptors or other migratory birds, or nest abandonment.	LTS/M	**NI**	LTS/M
Impact CUL-1: Future projects proposed under the North Ventura Coordinated Area Plan could result in the demolition of historic buildings, including yet identified historic resources as defined in CEQA Guidelines Section 15064.5.	SU	**NI**	SU
Impact NOI-1: Construction activities associated with build out of the NVCAP could generate groundborne vibration capable of causing cosmetic or worse building damage or adversely affecting nearby sensitive receptors.	LTS/M	**NI**	LTS/M
Impact TCR-1: Future projects proposed under the North Ventura Coordinated Area Plan could potentially result in impacts to undiscovered tribal cultural resources.	LTS/M	**NI**	LTS/M
Meets City's Objectives?	Yes	No	Partially
• Objective 1		No	Partially
• Objective 2		No	Yes
• Objective 3		No	Yes
• Objective 4		No	Yes
• Objective 5		No	Yes
• Objective 6		No	Yes
• Objective 7		No	Yes
• Objective 8		No	Yes
• Objective 9		No	Yes
• Objective 10		No	Yes
• Objective 11		No	Yes

Impacts	Proposed Project	Alternative 1: No Project	Alternative 2: Single-Story Adaptive Reuse
• Objective 12		No	Yes
• Objective 13		No	Yes

Notes: LTS/M = less than significant impact with mitigation incorporated; LTS = less than significant impact; NI = no impact

Bold text indicate being environmentally superior to the proposed project.

Section 8.0 References

The analysis in this Environmental Impact Report is based on the professional judgement and expertise of the environmental specialists preparing this document, based upon review of the site, surrounding conditions, site plans, and the following references:

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Section 9.0 Lead Agency and Consultants

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Section 10.0 Acronyms and Abbreviations

AB	Assembly Bill
ABAG	Association of Bay Area Governments
ACM	Asbestos-Containing Material
ALUC	Airport Land Use Commission
APN	Assessor's Parcel Number
ATCM	Asbestos Airborne Toxic Control Measure
BAAQMD	Bay Area Air Quality Management District
Bay Area	San Francisco Bay Area
BMR	Below market rate
Btu	British Thermal Unit
CAAQS	California Ambient Air Quality Standard
CAL FIRE	California Department of Forestry and Fire Protection
Cal/OSHA	California Department of Industrial Relations, Division of Occupational Safety and Health
CalARP	California Accidental Release Prevention
CalEPA	California Environmental Protection Agency
CALGreen	California Green Building Standards
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Standards Code
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFC	Chlorofluorocarbon
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH_4	Methane
CLUP	Comprehensive Land Use Plan
CNEL	Community Noise Equivalent Level
CO	Carbon Monoxide

CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalents
CRHR	California Register of Historical Resources
CUPA	Certified Unified Program Agency
dBA	A-weighted decibel
DNL	Day/Night Average Sound Level
DPM	Diesel Particulate Matter
DTSC	Department of Toxic Substances Control
EIR	Environmental Impact Report
EO	Executive Order
ESA	Environmental Site Assessment
EV	Electric vehicle
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulations
FHSZ	Fire Hazard Severity Zone
FMMP	Farmland Mapping and Monitoring Program
GHG	Greenhouse Gases
GHGRS	Greenhouse Gas Reduction Strategy
GWh	Gigawatt Hour
GWP	Global Warming Potential
Habitat Plan	Santa Clara Valley Habitat Plan
HABS	Historical American Building Survey
HSWA	Hazardous and Solid Waste Amendments
L_{eq}	Energy-Equivalent Sound/Noise Descriptor
L_{max}	Maximum A-weighted noise level during a measurement period
LOS	Level of Service
LRA	Local Responsibility Area
MBTA	Migratory Bird Treaty Act
$MMTCO_2e$	Million Metric Tons of Carbon Dioxide Equivalent
MND	Mitigated Negative Declaration
mpg	Miles per Gallon
MSL	Mean Sea Level

MTC	Metropolitan Transportation Commission
N_2O	Nitrous Oxide
NAAQS	National Ambient Air Quality Standard
NAHC	Native American Heritage Commission
NCP	National Contingency Plan
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_2	Nitrogen Dioxide
NOA	Naturally Occurring Asbestos
NOD	Notice of Determination
NOP	Notice of Preparation
NO_x	Nitrogen Oxides
NRHP	National Register of Historic Places
NVCAP	North Ventura Coordinated Area Plan
O_3	Ozone
PAMC	Palo Alto Municipal Code
PCB	Polychlorinated Biphenyls
PCF	Perfluorocarbon
PDA	Priority Development Areas
PG&E	Pacific Gas and Electric Company
PM	Particulate Matter
PM_{10}	Particulate matter with a diameter of 10 microns or less
$PM_{2.5}$	Particulate matter with a diameter of 2.5 microns or less
PPV	Peak Particle Velocity
PTMA	Palo Alto Transportation Management Association
R&D	Research and Development
RAP	Removal Action Plan
RCRA	Resource Conservation and Recovery Act
ROG	Reactive Organic Gases
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SB	State Bill
SCH	State Clearinghouse

SCS	Sustainable Communities Strategy
SEIR	Supplemental Environmental Impact Report
SF_6	Sulfur Hexafluoride
SHMA	Seismic Hazards Mapping Act
SMARA	Surface Mining and Reclamation Act
SMGB	State Mining and Geology Board
SMP	Site Management Plan
SO_x	Sulfur Oxides
SR	State Route
SRA	State Responsibility Area
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminants
TDM	Transportation Demand Management
Title 24	Title 24, Part 6 of the California Code of Regulations
TSCA	Toxic Substances Control Act
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
U.S. EPA	United States Environmental Protection Agency
VMT	Vehicle Miles Traveled
Williamson Act	California Land Conservation Act
WUI	Wildland-Urban Interface
ZNE	Zero Net Carbon Emission