Draft Environmental Impact Report

505 E. Bayshore Road Project

Prepared by

Redwood City California Founded 1867

In Consultation with

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September 2022

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SUMMARY

The 2.54-acre project site is located at 505 E. Bayshore Road in Redwood City. The site is currently developed with several corrugated metal warehouse buildings and outdoor storage facilities associated with an existing industrial facility. The remainder of the site is an undeveloped vacant lot.

The project proposes to demolish the existing development on the site to construct 56 townhouses, of which 51 would be base density units and five would be bonus density units. Eight of the units would be sold below market rate at a price point affordable to moderate income households. The townhouses would consist of two-, three-, and four-bedroom units, ranging from roughly 1,200 square feet to roughly 1,700 square feet in size. The units would be divided between nine buildings which would be three-story wood-framed structures on top of at-grade concrete foundations. In total, the buildings would provide 89,674 square feet of gross floor area. The buildings would reach maximum heights of 38 feet and would be setback at least 29 feet from the northern property line, 10 feet from the eastern property line, and 11 feet from the southern and western property lines. The project proposes 28,714 square feet of common open space, including an amenity area for residents on the eastern portion of the site.

The City's General Plan designates the project site as Commercial Regional, and the site is zoned CG – Commercial General. The project proposes a General Plan Amendment to Mixed Use – Waterfront Neighborhood and a rezoning to MUWF – Mixed Use Waterfront. Development standards for the Mixed-Use Waterfront Neighborhood designation permit a maximum residential density of 40 dwelling units per acre.

Significant Impacts and Mitigation Measures

The following table is a brief summary of the significant environmental impacts of the project identified and discussed within the text of the Environmental Impact Report (EIR), and the mitigation measures proposed to avoid or reduce those impacts. Refer to the main body text of the EIR for detailed discussions of the environmental setting, impacts, and mitigation measures. Alternatives to the proposed project are also summarized at the end of this section.

The project would not result in any significant unavoidable impacts.

Summary of Impacts and Mitigation Measures

Impact	Mitigation Measures
Air Quality	
Impact AIR-1: Construction activities associated with the proposed project would expose sensitive receptors near the project site to Toxic Air Contaminant emissions in excess of the BAAQMD cancer risk threshold of >10 cases per million and annual PM2.5 concentration threshold of 0.3 $\mu g/m^3$.	**MM AIR-1.1:** Prior to issuance of any demolition, grading, and/or building permits (whichever occurs earliest), the project applicant shall submit a construction operations plan to the Director of Community Development & Transportation or the Director's designee that includes specifications of the equipment to be used during construction. The plan shall be accompanied by a letter signed by an air quality specialist, verifying that the equipment

Impact	Mitigation Measures
(Less than Significant Impact with Mitigation Incorporated)	included in the plan meets the standards set forth below. • All construction equipment larger than 25 horsepower used at the site for more than two continuous days or 20 hours total shall, at a minimum, meet U.S. EPA Tier 4 final emission standards for particulate matter (PM_{10} and $PM_{2.5}$). ○ If Tier 4 equipment is not available, all construction equipment larger than 25 horsepower used at the site for more than two continuous days or 20 hours total shall meet U.S. Environmental Protection Agency (EPA) emission standards for Tier 3 engines and include particulate matter emissions control equivalent to CARB Level 3 verifiable diesel emission control devices that altogether achieve an 70 percent or greater reduction in particulate matter exhaust in comparison to uncontrolled equipment. • Use of alternatively fueled or electric equipment. Alternatively, the project applicant could develop a plan that reduces on- and near-site construction emissions by a minimum 60 percent or greater. The construction operations plan shall be reviewed and approved by the Director of Community Development & Transportation or the Director's designee prior to the issuance of any demolition, grading, or building permits (whichever occurs earliest).
Impact AIR-C: The project would not result in a cumulatively considerable contribution to a significant air quality impact. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**	See **MM AIR-1.1** above.

Summary of Impacts and Mitigation Measures	
Impact	**Mitigation Measures**
Biology	
Impact BIO-1: Construction activities could impact common native nesting birds and special-status birds such as Alameda Song Sparrow and White-Tailed Kite. (**Less than Significant Impact with Mitigation Incorporated)**	**MM BIO-1.1:** For the protection of special-status birds and native nesting birds protected by the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFGC), future project construction activities shall occur from September 1 – January 31 (inclusive) outside of the nesting season, to the extent feasible. If work cannot be scheduled to occur outside of the nesting season, and project construction activities (grading, staging, etc.,) are initiated during the nesting season (February 1 – August 31, inclusive), a qualified wildlife biologist shall conduct a nesting bird survey no more than 14 days prior to the start of project construction activities, such as grading or staging, and prior to issuance of any grading permit. If no active nests are identified during the surveys, no impacts will occur to birds and work shall progress without restriction. If active nests are identified, a no-disturbance buffer around the nest shall be implemented to avoid impacts to nesting birds. Buffers shall be determined by a qualified biologist, and typically range from 25 feet to 500 feet depending on the species, nest location, and protection status of that species. After an active nest is determined to no longer be active, because of young fledging or predation, the buffer around the nest shall be removed and work shall progress without restriction.
Impact BIO-2: Artificial lighting could have a potentially significant impact on local wildlife populations due to the high ecological value of these adjacent habitat areas and the rarity of some of the species inhabiting these areas. (**Less than Significant Impact with Mitigation Incorporated)**	**MM BIO-2.1:** Shielding of Lights. All exterior lighting on the project site will be shielded to block illumination from shining upward, or northward into the muted tidal drainage ditch, unnamed tidal slough, and Inner Bair Island to the north. The lit portion of light fixtures (i.e., the illuminants) shall be shielded from view to fish, birds, or mammals in the tidal marsh or muted tidal ditch. The project's lighting plan shall be reviewed and approved by the Redwood City Planning Division for compliance prior to issuance of a building permit. **MM BIO-2.2:** Orientation of Lights. Lights installed will be directed downward and, in the northern part of the project site, inward toward the project site (away from marsh habitats to the north), in order to limit the amount of light spilling into natural areas outside of the project site and preventing animals in those

Summary of Impacts and Mitigation Measures	
Impact	**Mitigation Measures**
	sensitive habitats from being exposed to glare/luminance from the light fixtures. The project's lighting plan shall be reviewed and approved by the Redwood City Planning Division for compliance prior to issuance of a building permit. **MM BIO-2.3:** Minimize Exterior Lighting. All exterior lighting used on the project site shall be Dark Sky Approved[1] lighting. The project shall include the installation of motion-sensor lighting and automatic light shut-off mechanisms. No red exterior lighting shall be used on the project site.
Impact BIO-3: Project activities may result in the injury or mortality of salt marsh harvest mice and salt marsh wandering shrews. **(Less than Significant Impact with Mitigation Incorporated)**	**MM BIO-3.1:** Worker Environmental Awareness Program. Before any construction activities begin, a qualified biologist will conduct a training session for all construction personnel. At a minimum, the training will include descriptions of the salt marsh harvest mouse and salt marsh wandering shrew, their habitats, the laws protecting them, the general measures that are being implemented to conserve these species as they relate to the project, and the boundaries within which the project may be accomplished. **MM BIO-3.2:** Exclusion Barrier. Prior to the start of construction activities below top of bank, a barrier will be installed along the northernmost limits of the work area to exclude salt marsh harvest mice and salt marsh wandering shrews from the project site. This barrier, which will be shown on the project plans and will be constructed under the guidance of a qualified biologist, will consist of a three-foot tall, tight cloth, smooth plastic, or sheet-metal (or similar material approved by the USFWS) fence toed into the soil at least three inches deep and supported with stakes placed on the inside of the barrier. A qualified biologist will conduct a preconstruction survey of the area where vegetation was removed prior to construction access, and will monitor the installation of the barrier. Following the installation of the barrier, designated construction personnel will check its integrity each morning that construction activities occur, and will initiate repairs immediately as needed.

[1] Exterior lighting fixtures that meet the International Dark-Sky Association's standards for artificial lighting minimize glare while reducing light trespass and skyglow, and are required to be fully shieled and minimize the amount of blue light in the nighttime environment (Source: International Dark-Sky Association. 2020)

Impact	Mitigation Measures
	MM BIO-3.3: Environmentally Sensitive Area Fencing. Within the banks of the muted tidal drainage ditch, the project limits will also be clearly demarcated with Environmentally Sensitive Area fencing to avoid inadvertent disturbance of any habitat outside of the designated construction area during construction activities. This fencing can be combined with the exclusion barrier but must not be outside that barrier. **MM BIO-3.4:** Immediate Work Stoppage. If a salt marsh harvest mouse or salt marsh wandering shrew, or an animal that could be a harvest mouse or wandering shrew (e.g., a similar species of mouse or shrew), is observed on the project site during project activities, all work that could result in the injury or death of the individual will stop immediately and the qualified biologist will be immediately notified. The animal will be allowed to leave the area on its own and will not be handled.
Impact BIO-4: Project activities may result in the introduction of invasive weeds during and following project construction which could lead to degradation of muted tidal marsh habitat. **(Less than Significant Impact with Mitigation Incorporated)**	**MM BIO-4.1:** Implement Invasive Weed Best Management Practices. The invasion and/or spread of noxious weeds will be avoided by the use of the following invasive weed best management practices: • The use of moderate or highly invasive and/or noxious weeds (as defined by California Department of Food and Agriculture) for landscaping is prohibited. • During project construction, all seeds and straw materials used on-site will be weed-free rice (or similar material acceptable to the City), straw, and all gravel and fill material will be certified weed-free to the satisfaction of the City. Any deviation from this will be approved by the City. • During project construction, vehicles and all equipment will be washed (including wheels, undercarriages, and bumpers) before entering the proposed project footprint. Vehicles coming to the site will be cleaned at existing construction yards or legally operating car washes. • Following construction of the project, a standard erosion control seed mix (acceptable to the City) from a local source will be planted

Impact	Mitigation Measures
	within the temporary impact zones on any disturbed ground that will not be under hardscape, landscaped, or maintained. This will minimize the potential for the germination of the majority of seeds from non-native, invasive plant species.
Impact BIO-5: The project would result in the permanent loss of muted tidal marsh habitat, which is potential habitat for salt marsh harvest mice and salt marsh wandering shrews. **(Less than Significant Impact with Mitigation Incorporated)**	**MM BIO-5.1:** Compensatory Mitigation. For permanent impacts to 0.04 acres of muted tidal marsh, the project applicant will provide compensatory migration for impacts to habitat of the salt marsh harvest mouse. Mitigation may be satisfied through project-specific conservation and management of suitable habitat occupied by these species and/or the purchase of credits at a conservation bank that has been approved by the City and CDFW. The conservation bank does not necessarily need to be approved for salt marsh harvest mouse mitigation as long as it provides suitable habitat for the species in an area expected to support the species (e.g., the San Francisco Bay Tidal Wetlands Bank in Redwood City would be appropriate). If compensatory mitigation is provided through project-specific conservation and management of suitable habitat, the project applicant will provide the mitigation at a 2:1 (mitigation: impact) ratio on an acreage basis for permanent impacts to suitable habitat. If compensatory mitigation is provided through the purchase of credits at an approved conservation bank, mitigation will be provided at a 1:1 (mitigation: impact) ratio for permanent impacts. If the project applicant provides mitigation through project-specific conservation and management of suitable habitat, the project applicant will prepare a Habitat Mitigation and Monitoring Plan describing the proposed mitigation lands for conservation/management, and monitoring that will occur to ensure that those lands continue to provide suitable habitat conditions. If the mitigation lands are suitable for multiple species and habitats, then the project applicant may rely on such lands to mitigate impacts to multiple species and habitats. The Habitat Mitigation and Monitoring Plan will be prepared by a qualified ecologist and will include the following:

Impact	Mitigation Measures
	• A summary of habitat impacts and proposed acres of habitat conservation; • The location of habitat conservation and enhancement site(s), and description of existing site conditions; • A monitoring plan (including performance criteria, methods, data analysis, reporting requirements, and schedule). At a minimum, performance/success criteria will include demonstration of the presence of suitable habitat for the salt marsh harvest mouse, and no more than five percent invasive species by cover by year five. The project applicant will also ensure adequate resources, including funding to implement the mitigation, maintenance, and monitoring of the mitigation lands. If compensatory mitigation is provided through a purchase of mitigation credits, the project applicant will purchase the credits from a conservation bank in consultation with the appropriate resource agencies prior to commencement of project construction.
Impact BIO-6: The project could result in an impact to salt marsh harvest mice and salt marsh wandering shrews from an increase in predation due to increased available food waste, an increase in outdoor pets, and/or the presence of one or more feral cat feeding station(s). **(Less than Significant Impact with Mitigation Incorporated)**	**MM BIO-6.1:** Prohibit Outdoor Cats and Off-Leash Dogs. Outdoor cats and off-leash dogs will be prohibited on the property following project construction. This measure will be incorporated into the covenants, conditions & restrictions (CC&Rs) for the project and enforced by the property's homeowners association. **MM BIO-6.2:** Food Waste Management. The CC&R's for the project shall include the following measures to minimize impacts on salt marsh harvest mice and salt marsh wandering shrews due to the attraction of nuisance predators to the project site: • Any bins used for food waste shall include lids that seal tightly to prevent access by animals and incorporate a mechanism to prevent them from being inadvertently left open when not in active use. • Outdoor trash and recycling receptacles shall be routinely emptied throughout the day by the janitorial service, thus ensuring that cans

Impact	Mitigation Measures
	do not fill up and allow food waste to spill out. • The homeowners association shall ensure that any litter on the site is picked up daily, and no food trash is left on-site overnight. • Signs shall be placed on trash and recycling receptacles reminding users to close the lids so that they will not be inadvertently left open. • Signs shall be placed informing residents and visitors to not feed feral or wild mammals, including feral cats, on the property. • Educational signs shall be posted explaining the importance and sensitivity of nearby marsh habitats, prohibiting feeding wildlife (including feral cats) on the property, and prohibiting outdoor cats and off-leash dogs. In addition, signs will advise residents and visitors to dispose of food waste in outdoor areas appropriately to avoid attracting and subsidizing nuisance species. This measure will be incorporated into the covenants, conditions & restrictions (CC&Rs) for the project and enforced by the property's homeowners association. The homeowners association would provide an annual report documenting the project's compliance with this mitigation measure to the Department of Community Development and Transportation for approval. The report will include photo documentation with timestamps and written documentation.
Impact BIO-C: The project would not result in a cumulatively considerable contribution to a significant biological resources impact. (**Less than Significant Cumulative Impact with Mitigation Incorporated)**	See **MM BIO-1.1 – 6.2** above.

Summary of Impacts and Mitigation Measures	
Impact	**Mitigation Measures**
Hazards and Hazardous Materials	
Impact HAZ-1: The project could expose construction workers to hazardous materials associated with contaminated fill on the site. **(Less than Significant Impact with Mitigation Incorporated)**	**MM HAZ-1.1:** Prior to the issuance of a demolition permit and before any substantial ground disturbance, the applicant shall hire a qualified environmental professional to prepare a Site Management Plan (SMP) for the project site. The SMP, and any remedial actions required as part of it, shall be implemented by the applicant and its contractors to the satisfaction of the relevant oversight agencies (City of Redwood City Fire Department, San Francisco Bay Regional Water Quality Control Board (RWQCB), and/or San Mateo County or State Department oversight agency, or other appropriate agency having jurisdiction) to ensure sufficient minimization of risk to human health and the environment is completed. At a minimum, the SMP shall: 1. Establish minimum requirements for worker training and site-specific health and safety plans, to protect the general public and workers in the construction area (note: these requirements and all previous environmental sampling results shall be provided by the applicant to all contractors, who shall be responsible for developing their own construction worker health and safety plans and training requirements). 2. Establish appropriate site-specific cleanup targets for site soils that are protective of human health and the environment, based on the proposed future land uses(s). At a minimum, these targets shall be equal to, or more protective than the RWQCB ESLs for Residential Use; or in the case of contaminants that have naturally occurring background levels that exceed the residential ESLs, the target shall be equal to, or more protective than, the regional background level for that contaminant. 3. Identify and implement measures such as excavation, containment, or treatment of the contaminated soils to achieve the plan's cleanup targets, and/or to provide protection of future site users from exposure to

Impact	Mitigation Measures
	remaining soil (if any) that exceed the plan's clean-up targets, including: a. Description of post-excavation confirmation sampling requirements. If residual contamination remains at the site above the site-specific cleanup targets, include appropriate controls, including institutional controls where and if necessary, to assure that activities by future users do not expose them to unacceptable health and safety risks. Such controls may include, but are not limited to, visual barriers over contaminated soil, followed by a cap of clean soil or hard surface materials; operation and maintenance protocols for any disturbance of contaminated soils; and recording of deed restrictions, such as activity and use limitations, with the San Mateo County Recorder's Office to assure that the remedy is maintained. b. If excavated soils are to be reused on-site, characterization shall be undertaken to determine that such materials do not exceed the established cleanup targets for the site, or that such reused materials are subject to appropriate controls, as described in the bullet point above for addressing residual contamination. c. If excess materials are off-hauled, waste profiling of the material shall be completed and documented. Materials classified as nonhazardous waste shall be transported under a bill of lading. Materials classified as hazardous waste shall be transported under a hazardous waste manifest. All materials shall be disposed of at an appropriately licensed landfill or facility. d. Trucking operations shall comply with the California Department of Transportation and any other applicable regulations, and all trucks shall be

Impact	Mitigation Measures
	licensed and permitted to carry the appropriate waste classification. The tracking of dirt by trucks leaving the project site shall be minimized by cleaning the wheels on exiting and cleaning the loading zone and exit area as needed. 4. Establish procedures for dewatering of construction excavations and/or dewatering of excavated sediments prior to off-hauling (if required), consistent with federal, state, and local regulations, specifying methods of water collection, handling, transport, treatment, discharge, and disposal for all water produced by dewatering activities. 5. Identify measures to protect future site users from contact with contaminants in groundwater. Such measures may include operation and maintenance protocols for any disturbance of groundwater, and recording of deed restrictions, such as activity and use limitations, with the San Mateo County Recorder's Office to assure that the implemented remedy(ies) is maintained. 6. Include contingency measures to address unanticipated conditions or contaminants encountered during construction and development activities. The contingency measures shall establish and describe procedures for responding in the event that unanticipated subsurface hazards or hazardous material releases are discovered during construction, including appropriately notifying nearby property owners, schools, and residents, and following appropriate site control procedures. Control procedures would include, but not be limited to further investigation; and if necessary, remediation of such hazards or releases, including off-site removal and disposal, containment, or treatment. If unanticipated subsurface hazards or hazardous material releases are discovered during construction, the contingency measures addressing unknown contaminants shall be followed. The contingency measures shall be amended as necessary if new information

Summary of Impacts and Mitigation Measures	
Impact	**Mitigation Measures**
	becomes available that could affect implementation of the measures.
Impact HAZ-2: The project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. (**Less than Significant Impact with Mitigation Incorporated)**	See **MM HAZ-1.1** above.
Impact HAZ-C: The project would not result in a cumulatively considerable contribution to a significant hazards and hazardous materials impact. (**Less than Significant Cumulative Impact with Mitigation Incorporated)**	See **MM HAZ-1.1** above.
Transportation	
Impact TRN-1: The project would conflict with adopted plans for bicycle lanes on E. Bayshore Road.	**MM TRN-1.1:** The project shall redesign proposed on-street improvements along the project frontage to incorporate the planned bicycle lanes on E. Bayshore Road. The revised plans shall be submitted to the Director of the Community Development and Transportation Department for review and approval prior to issuance of the first building permit for the project.
Impact TRN-2: The project generated home-based VMT per capita is 13.4, which is greater than the threshold of 10.5 for residential uses. Without measures to reduce VMT, the project would have a significant impact based on the project generated VMT. **(Less than Significant Impact with Mitigation Incorporated)**	**MM TRN-2.1:** The project shall develop and implement a TDM plan sufficient to demonstrate that VMT associated with the project is reduced to a level less than or equal to 10.5 miles per capita. The following measures represent a feasible method for achieving the required VMT reduction: 1. On-site information 2. New resident orientation 3. Annual promotion of TDM measures 4. Bike racks for visitors 5. Indoor bike parking for residents 6. Land/facilities for pedestrian/bike connections 7. Free annual Caltrain/SamTrans passes

Impact	Mitigation Measures
	The TDM plan shall be submitted to and approved by the Community Development and Transportation Department, and shall be monitored annually to gauge its effectiveness in meeting the required VMT reduction. A transportation professional working at the City's direction and pursuant to a scope of work approved by the City Engineer shall conduct traffic counts annually to measure the daily and peak-hour entering and exiting vehicle volumes. The volumes will be compared to benchmarks established by the transportation professional and the City Engineer to determine whether the necessary reduction in vehicle trips is being met. In addition to monitoring driveway volumes, a survey will be developed by the transportation professional to determine actual mode splits for employees and patrons of the fitness center. The survey will also gather information on usage of individual TDM plan components. The results of the annual vehicle counts and survey will be reported in writing by the transportation professional to the Community Development and Transportation Department. If TDM plan monitoring results show that the trip reduction targets are not being met, the TDM plan shall be updated to identify replacement and/or additional feasible TDM measures to be implemented. The updated TDM plan shall be subject to the same approvals and monitoring requirements listed above. If monitoring and reporting demonstrates that the project is non-compliant (i.e, did not fulfill the requirements of the TDM plan, meet the drive-alone reduction targets, etc.), the City as the enforcing agency may impose penalties including fines and/or permit limitations.
Impact TRN-C: The project would not result in a cumulatively considerable contribution to a significant transportation impact. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**	See **MM TRN-2.1** above.

Project Alternatives

The California Environmental Quality Act (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 this section 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 (Section 15126.6).

While CEQA does not require that alternatives be capable of meeting all of the project objectives, their ability to meet most of the objectives is considered relevant to their consideration. The stated objectives of the project applicant are to:

- Redevelop the 2.54-acre site to allow for the creation of a residential waterfront project.
- Construct up to 56 residential units, including eight moderate below market rate units, in nine buildings.
- Provide pedestrian and bicycle circulation around and through the site.
- Enhance public connectivity to the Bay Trail by providing a new public trail segment.
- Provide a high-quality residential project to help improve the regional and Redwood City jobs/housing balance.
- Include sustainability features that help meet Redwood City sustainability goals.
- Provide for-sale housing (with affordable for-sale housing) to create opportunities for home ownership and community building.
- Locate housing outside of the Downtown area.
- Provide active recreation area, paths, boardwalk and amenities along the waterfront to increase Bay Trail resiliency.

The City of Redwood City has developed the following project objectives:

- Provide a high-quality residential project to help improve the regional and Redwood City jobs/housing balance.
- Include sustainability features that help meet Redwood City sustainability goals.
- Provide for-sale housing (with affordable for-sale housing) to create opportunities for home ownership and community building.
- Locate housing outside of the Downtown area.
- Provide active recreation area, paths, boardwalk and amenities along the waterfront to increase Bay Trail resiliency.

Project Alternatives Considered but Rejected

The following alternative was considered for the project but rejected.

Location Alternative

There is no rule requiring an EIR to explore off-site project alternatives in every case. As stated in the Guidelines: "An EIR shall describe a range of reasonable alternatives to the project, or (emphasis added) to the location of the project, 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, and evaluate the comparative merits of the alternatives." (Guidelines, § 15126.6, subd. (a), italics added.) As this implies, "an agency may evaluate on-site alternatives, off-site alternatives, or both." (Mira Mar, supra, 119 Cal.App.4th at p. 491.). The Guidelines thus do not require analysis of off-site alternatives in every case. Nor does any statutory provision in CEQA "expressly require a discussion of alternative project locations." (119 Cal.App.4th at p. 491 citing §§ 21001, subd. (g), 21002.1, subd. (a), 21061.)

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". The proposed project is a high-residential development on East Bayshore Road. It is not likely that an alternative location within this area of Redwood City would substantially lessen the identified impacts, other than those related to biological resources. A site not near the bay and tidal habitats would likely avoid the project's impacts to biological resources and avoid the need for mitigation noted above. As a private development project proposed by a private applicant, the consideration of alternative locations is tempered by the fact the applicant has control over the current proposed site, and may not be able to obtain control of another location, unlike a public agency, which may employ eminent domain to acquire a site. For these reasons, an alternative location is not considered further.

Project Alternatives Considered for Further Analysis

No Project Alternative

The CEQA Guidelines [Section 15126(d)4] require an EIR specifically include 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 is not approved, based on current plans and consistent with available infrastructure and community services." [Section 15126.6(e)(2)] 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)]."

No Project – No Development Alternative: The No Project – No Development Alternative would retain the existing industrial development on the site. If the project site were to remain as is, there would be no new impacts.

Implementation of the No Project – No Development alternative would avoid the less than significant impacts with mitigation identified in this EIR. The No Project No-Development alternative would not, however, allow for new waterfront residential development to be constructed on the project site. A project without residential development would not address RHNA needs or address the City Council's strategic priority for housing This alternative does not meet any of the objectives of the proposed project.

No Project- Existing Plans and Policies Alternative: The No Project-Existing Plans and Policies Alternative would assume the currently proposed project is not approved, and a different project is proposed based on what the General Plan currently allows.

The project site is designated as *RC-Commercial Regional* under the City of Redwood City's General Plan adopted in 2010. The *RC-Commercial Regional* designation provides opportunities for general retail, commercial services, restaurants, lodging, vehicle sales and service, commercial recreation, professional offices, medical and financial institutions, and other similar business activities. Representative development forms include large retail centers anchored by one or more major tenants, large stand-alone retail stores, hospitality uses, and automobile dealerships. Uses specifically prohibited include commercial warehousing, mini-storage, trucking and transportation-related uses, and heavy manufacturing. The maximum FAR is 1.0, and the maximum height is five stories within the U.S. 101 corridor and three stories in all other locations.

An alternative project that is consistent with the General Plan would allow for commercial development on the property. The alternative project could potentially be similar in scale to or larger than the proposed development, as allowed under the General Plan. Based on allowed development capacities on the site, an alternative project could construct up to 110,640 square feet of commercial uses, which would result in a greater level of development than the proposed project.

The environmental effects of redevelopment the site with a different development project consistent with the General Plan would likely result in similar construction and operational effects as the proposed project. To the extent more intense development were to be proposed beyond what is currently pending with the subject project application, construction and operational effects could be increased. Additionally, this alternative would not provide affordable housing to the City.

Implementation of the existing plans and policies "No Project" alternative would not avoid the less than significant impacts with mitigation identified in this EIR.

Design Alternative – Removal of Cantilevered Portions of Public Trail

The project proposes to construct a public trail along the northern boundary of the site, providing access between E. Bayshore Road and a planned public trail segment to be located on the adjacent property to the east. As described in Section 3.4 Biological Resources, portions of the trail would be cantilevered to overhang 0.04 acres (or roughly 1,742 square feet) of muted tidal marsh habitat. Although these portions of the trail would not result in direct impacts to the habitat from grading or construction activities, shading from the cantilevered structures would result in long-term degradation of this habitat, which provides potential foraging habitat for salt marsh harvest mice and salt marsh wandering shrews. This habitat is of low quality due to its small size and isolation from higher quality marsh habitats to the north, but it is possible that individual salt marsh harvest mice

and salt marsh wandering shrews occur here. Due to the rarity of the salt marsh harvest mouse and salt marsh wandering shrew, project impacts to their habitat would be considered significant, even though the existing habitat is of low quality.

This project alternative would redesign the proposed public trail to eliminate any cantilevered structures overhanging the muted tidal marsh habitat. The cantilevered structures are primarily associated with two "nodes" intended as observation areas or other passive recreational use by trail users, as well as a small portion of the trail itself near the project's western boundary (refer to Figures 2.0-4 and 3.4-1). Eliminating the cantilevers structures would avoid the impact to muted tidal marsh habitat. It should be noted that this impact would be reduced to a less than significant level under the currently proposed project with implementation of mitigation measures (MM BIO-5.1).

This alternative would still meet all project objectives, but would reduce passive recreational opportunities for users of the trail by eliminating areas for resting, gathering, and viewing the San Francisco Bay. Additionally, removing the cantilevered portions of the trail may require a reduction to the width of the trail in some locations, which could result in inconsistencies with BCDC requirements for trail design.

Implementation of the Design Alternative – Removal of Cantilevered Portions of the Public Trail would avoid the need to mitigate impacts to muted tidal marsh habitat. All other impacts of the project would remain the same.

Reduced Scale Alternative

The majority of the project's impacts are a result of general development activity that would occur with nearly any project on the site, regardless of size (Impacts BIO-1 through BIO-4, Impact BIO-6, and Impacts HAZ-2 and HAZ-2). However, impacts related to VMT (Impact TRN-2) and construction air quality emissions (Impact AIR-2) could potentially be reduced by reducing the scale of the project. To reduce these impacts and potentially avoid the need for mitigation, a reduced scale alternative is considered.

The Redwood City Transportation Analysis Manual identifies certain projects that would be assumed to have a less than significant VMT impact based on suggestions from the State of California's Office of Planning and Research (OPR) Technical Advisory (December 2018, pages 13-15). "Small projects", defined as generating 150 or fewer average daily vehicle trips, can be assumed to result in a less than significant VMT impact. The City's Transportation Analysis Manual identifies the screening threshold for multi-family residential projects as roughly 20 units. Reducing the scale of the project to 20 or fewer units, therefore, would place the project below the City's screening threshold, avoiding the need to mitigate the project's VMT impacts. It should be noted that this impact would be reduced to a less than significant level under the currently proposed project with implementation of mitigation measures (MM TRN-2.1).

While reducing the scale of the project would reduce construction activity to a certain extent, the phases of construction requiring the heaviest equipment (therefore resulting in the greatest emissions), such as site grading, would still be required to a similar extent as the proposed project. Mitigation measures similar to those identified for the proposed project (MM AIR-2.1), which

require the use of low-emitting construction equipment, would still be required to reduce impacts to less than significant levels.

Because less space would be needed to accommodate the lower number of proposed units, reducing the scale of the project would likely allow for a redesign of the proposed public trail in a manner that would remove the need for cantilevering, therefore avoiding the impact to 0.04 acre (or roughly 1,742 square feet) of muted tidal marsh habitat.

Implementation of Reduced Scale Alternative would avoid the need for mitigation for project-related VMT impacts and may avoid impacts to muted tidal marsh by allowing for a redesign of the proposed public trail. However, this alternative would still be required to implement mitigation measures for all other identified impacts on the site. This alternative would meet most of the project objectives, albeit to a lesser degree than the proposed project. However, this alternative would reduce the amount of housing to be provided in the City, including a potential reduction in the amount of proposed affordable housing.

Known Views of Local Groups and Areas of Controversy

Concerns raised in responses to the NOP included aesthetics, biological resources, hydrology and water quality, hazards and hazardous materials, greenhouse gas emissions, transportation, and tribal cultural resources.

SECTION 1.0 INTRODUCTION

1.1 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT

The City of Redwood City, as the Lead Agency, has prepared this Draft Environmental Impact Report (EIR) for the 505 E. Bayshore Road project in compliance with the California Environmental Quality Act (CEQA) and the CEQA Guidelines.

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, Redwood City is required to consider the information in the 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.

1.2 EIR PROCESS

1.2.1 Notice of Preparation and Scoping

In accordance with Section 15082 of the CEQA Guidelines, Redwood City prepared a Notice of Preparation (NOP) for this EIR. The NOP was circulated to local, state, and federal agencies on August 25th, 2021. The standard 30-day comment period concluded on September 24th, 2021. The NOP provided a general description of the proposed project and identified possible environmental impacts that could result from implementation of the project. Redwood City also held a public scoping meeting on September 16th, 2021 to discuss the project and solicit public input as to the scope and contents of this EIR. The meeting was held virtually via teleconference. Copies of the NOP were made available digitally and at City Hall and at the Main Library. Appendix A of this EIR includes the NOP and comments received on the NOP.

1.2.2 Draft EIR Public Review and Comment Period

Publication of this Draft EIR will mark the beginning of a 45-day public review period. During this period, the Draft EIR 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 EIR will be sent directly to every agency, person, and organization that commented on the NOP, as well as the Office of Planning and Research. A copy of the DEIR is available online at the City's Web site: http://www.redwoodcity.org/developmentprojects. Hard copies of the Draft EIR will not be available at City Hall or the Library but can be requested by mail. Due to the Covid-19 pandemic, it is recommended that any comments be sent via email due to City Hall closure. Comments concerning the environmental review contained in this Draft EIR during the 45-day public review period should be sent to:

Curtis Banks, Contract Principal Planner
City of Redwood City
1017 Middlefield Road
Redwood City, CA 94063
cbanks@redwoodcity.org

Verbal and written comments on the contents of the Draft EIR will also be accepted at a public meeting to be held by the Planning Commission on October 4, 2022 starting at 6 p.m.

Comments should focus on the adequacy and completeness of the Draft EIR, or should address questions about the environmental consequences of project implementation. Concerns regarding adequacy typically relate to the thoroughness of the Draft EIR in addressing significant adverse physical environmental effects; the identification of mitigation measures for those impacts; and providing sufficient information for public officials to consider when making decisions about the project.

1.3 FINAL EIR/RESPONSES TO COMMENTS

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

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

All persons who submitted written comments on the Draft EIR will be notified of the availability of the Final EIR and the date of the scheduled public hearing(s) for the project; responses to comments submitted by public agencies will be provided to those agencies at least 10 days prior to final action. The Planning Commission will first review the Final EIR and the project and make recommendations to the City Council. The City Council will then consider and take action on the adequacy of the Final EIR, and on whether or not the City should approve the project entitlements.

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.

1.3.1 Notice of Determination

If the project is approved, Redwood City will file a Notice of Determination (NOD), which will be available for public inspection and posted consistent with applicable legal requirements at the time of project approval.

SECTION 2.0 PROJECT INFORMATION AND DESCRIPTION

2.1 PROJECT LOCATION

The 2.54-acre project site is located at 505 E. Bayshore Road in Redwood City (Assessor Parcel Number 052-520-010). The site is currently developed with several corrugated metal warehouse buildings and outdoor storage facilities associated with an existing industrial facility. The remainder of the site is an undeveloped vacant lot. The site is bordered by E. Bayshore Road to the west, a car dealership to the south, an unoccupied former movie theater property to the east, and Smith Slough and Bair Island to the north. Regional, vicinity and aerial maps of the site are shown on Figures 2.0-1, 2.0-2, and 2.0-3.

2.2 PROJECT DESCRIPTION

2.2.1 Proposed Development

The project proposes to demolish the existing development on the site to construct 56 townhouses, of which 51 would be base density units and five would be bonus density units. Eight of the units would be sold below market rate at a price affordable to a moderate income household (80 percent to 120 percent of the area median income). The townhouses would consist of two-, three-, and four-bedroom units, ranging from roughly 1,200 square feet to roughly 1,700 square feet in size. The units would be divided between nine buildings which would be three-story wood-framed structures on top of at-grade concrete foundations. In total, the buildings would provide 89,674 square feet of gross floor area. The buildings would reach maximum heights of 38 feet and would be setback at least 29 feet from the northern property line, 10 feet from the eastern property line, and 11 feet from the southern and western property lines. The project proposes 28,714 square feet of common open space, including an amenity area for residents on the eastern portion of the site. The proposed site plan is shown on Figure 2.0-4. Building elevations for the proposed project are shown on Figure 2.0-5.

2.2.1.1 *Site Access, Circulation, and Parking*

Vehicular access to the site would be provided via a driveway on E. Bayshore Road. An internal roadway would provide access to each residential building. A public trail would be constructed along the northern boundary of the site, providing access between E. Bayshore Road and a planned public trail segment to be located on the adjacent property to the east, expanding and enhancing public access along the shoreline. Pedestrian pathways would be located throughout the site, connecting the proposed buildings to the public trail and E. Bayshore Road. The public trail would also provide bicycle access to the site. Portions of the trail would be cantilevered over the tidal marsh habitat in the drainage ditch located immediately north of the site, but no grading or other direct disturbance associated with trail construction will occur within the tidal marsh habitat.

Each unit would include a two-car garage. A total of 112 garage spaces and seven surface spaces would be provided, resulting in 119 parking spaces on the site. One of the seven surface spaces would be an accessible space. A total of 19 bicycle parking spaces would be provided.

As described in further detail in Section 3.9, the applicant has offered, and will be conditioned to provide, an Emergency Preparedness and Evacuation Plan that will state that all project evacuation procedures will be conducted according to the City of Redwood City and County of San Mateo's

evacuation plans and fire department procedures and include signage identifying the emergency access routes and shelter in place locations.

2.2.1.2 *Landscaping*

The project would remove all 10 existing trees on the site and plant approximately 157 replacement trees. Accent shrubs and ornamental landscaping would be planted along the perimeter of the proposed buildings, and additional landscaping would be planted in the common areas around the perimeter of the site. The landscape plan for the proposed project is shown on Figure 2.0-6.

2.2.1.3 *Utilities and Stormwater Treatment/Controls*

Stormwater on the site would be treated through a combination of vegetated bioretention areas, permeable paving, and flow-through treatment planters. The treatment areas would be located primarily around the site's perimeter and adjacent to the proposed buildings. In total, the project proposes approximately 25,960 square feet of treatment areas. Stormwater would be conveyed through storm drainage pipes ranging from eight-inches to 12-inches in diameter, ultimately discharging to a new proposed storm drain outfall at the northwestern boundary of the project site. The stormwater plan for the proposed project is shown on Figure 2.0-7.

The project would improve the potable water main in E. Bayshore Road by replacing the existing eight-inch pipe with a 12-inch pipe from Bair Island Road to the project frontage, a distance of approximately 1,730 linear feet. Should the proposed development at the adjacent 557 E. Bayshore Road property be constructed prior to the proposed project, the project would only be required to replace approximately 900 linear feet of pipe because the 557 E. Bayshore development would have already replaced roughly 830 linear feet of the existing water main with a new 16-inch pipe. New connections would be provided for domestic water service, building fire sprinkler service, and site fire hydrant services. The project would connect to the existing eight-inch sanitary sewer main in E. Bayshore Road via a new six-inch lateral from the site. The project will also be connecting to the existing recycled water main on E. Bayshore Road for dual plumbing and irrigation.

2.2.1.4 *Project Construction*

The proposed project would be constructed in approximately 18 months and would begin construction as early as February 2023 and be completed as early as June 2024. The existing development on the site would be demolished to accommodate the project. In addition, the current site elevation, which is approximately seven feet above mean sea level[2], would be increased to three feet above the Federal Emergency Management Agency (FEMA) base flood elevation of 10 feet (for a site elevation of approximately 13 feet above mean sea level) in order to protect from flooding and future sea level rise.

[2] Langan Engineering and Environmental Services, Inc. Phase I Environmental Site Assessment 505 East Bayshore Road. July 9, 2019.

2.2.1.5 *General Plan Land Use Designation and Zoning*

The City's General Plan designates the project site as Commercial Regional, and the site is zoned CG – Commercial General. The project proposes a General Plan Amendment to Mixed Use – Waterfront Neighborhood and a rezoning to MUWF – Mixed Use Waterfront. Development standards for the Mixed-Use Waterfront Neighborhood designation permit a maximum residential density of 40 dwelling units per acre.

2.3 PROJECT OBJECTIVES

Pursuant to CEQA Guidelines Section 15124, the EIR must identify the objectives sought by the proposed project. The project applicant has stated the following objectives:

- Redevelop the 2.54-acre site to allow for the creation of a residential waterfront project.
- Construct up to 56 residential units, including eight moderate below market rate units, in nine buildings.
- Provide pedestrian and bicycle circulation around and through the site.
- Enhance public connectivity to the Bay Trail by providing a new public trail segment.
- Provide a high-quality residential project to help improve the regional and Redwood City jobs/housing balance.
- Include sustainability features that help meet Redwood City sustainability goals.
- Provide for-sale housing (with affordable for-sale housing) to create opportunities for home ownership and community building.
- Locate housing outside of the Downtown area.
- Provide active recreation area, paths, boardwalk and amenities along the waterfront to increase Bay Trail resiliency.

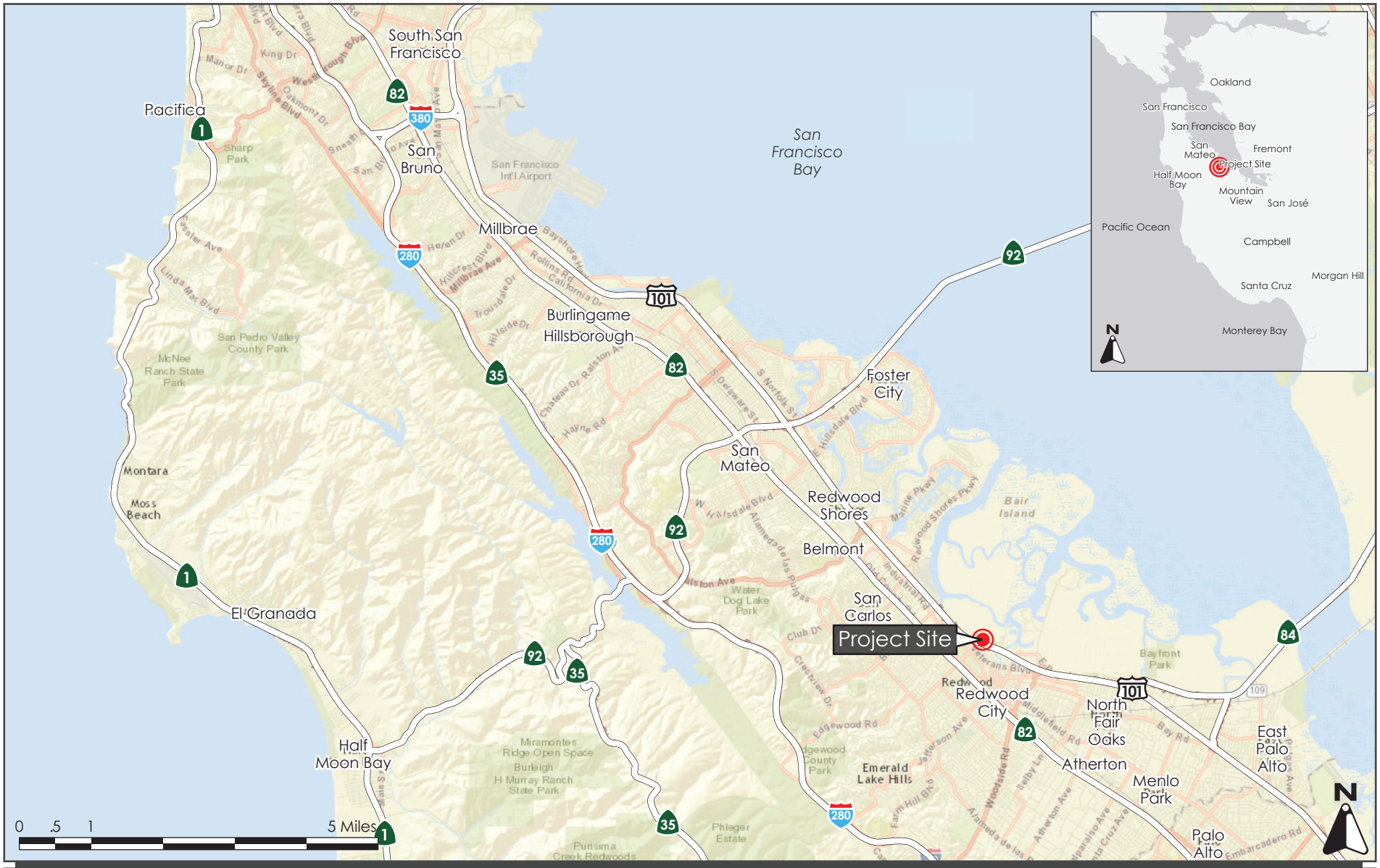
The City of Redwood City has developed the following project objectives:

- Provide a high-quality residential project to help improve the regional and Redwood City jobs/housing balance.
- Include sustainability features that help meet Redwood City sustainability goals.
- Provide for-sale housing (with affordable for-sale housing) to create opportunities for home ownership and community building.
- Locate housing outside of the Downtown area.
- Provide active recreation area, paths, boardwalk and amenities along the waterfront to increase Bay Trail resiliency.

2.4 USES OF THE EIR

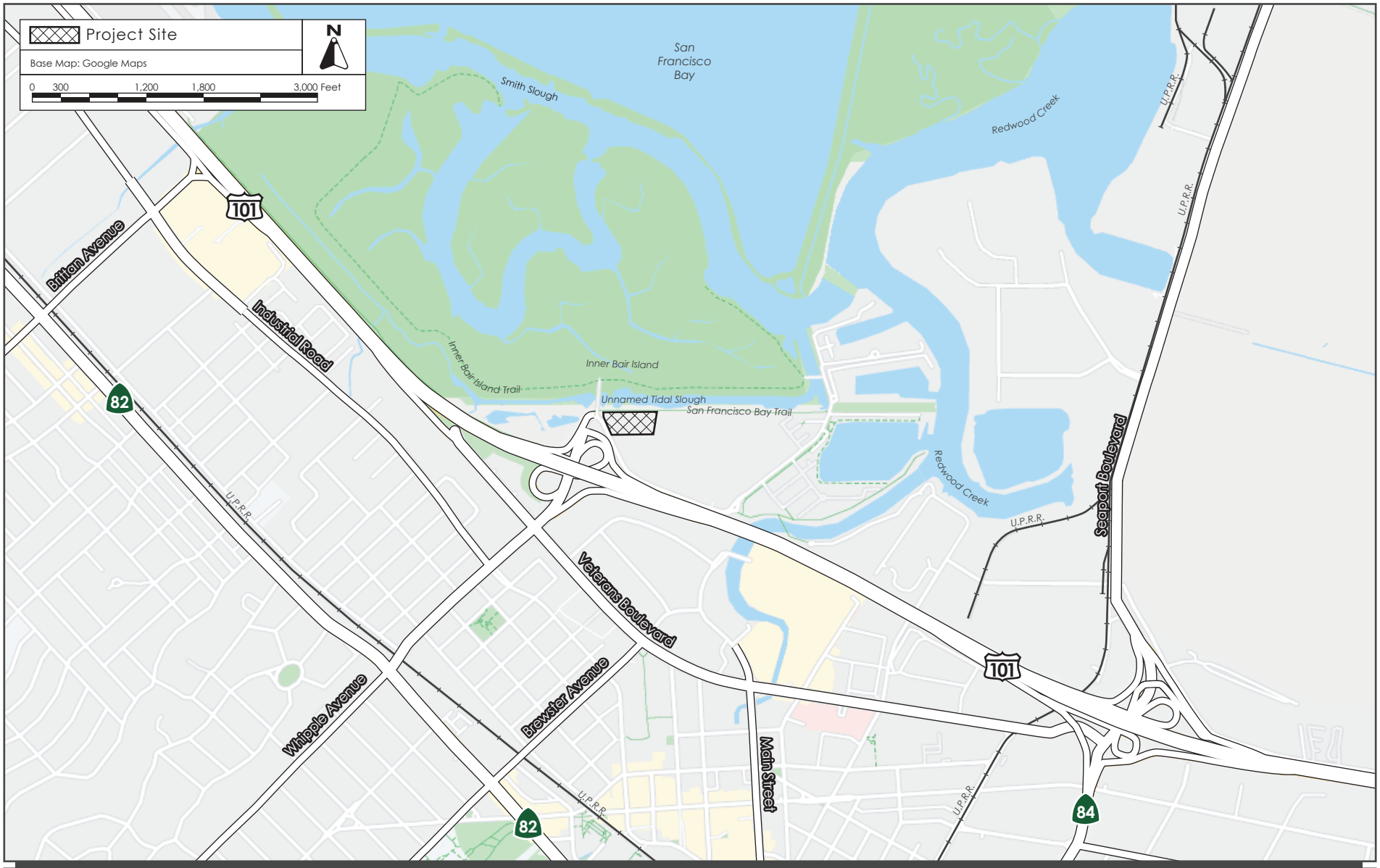
This EIR is intended to provide the City of Redwood City, other public agencies, and the general public with the relevant environmental information needed in considering the proposed project. The City anticipates that discretionary approvals by the City, including but not limited to the following, will be required to implement the project addressed in this EIR:

- General Plan Amendment from Commercial Regional to Mixed Use – Waterfront Neighborhood.
- Rezoning from CG (General Commercial) to MUWF (Mixed Use Waterfront)
- Affordable Housing Plan
- Application of State Density Bonus Law
- San Francisco Bay Conservation and Development Commission (BCDC) Shoreline Band Permit
- Airport Land Use Commission (ALUC) Consistency Review
- Architectural Permit
- Tree Removal Permit
- Issuance of Demolition, Grading, Building, Encroachment, Utility, and Occupancy Permits
- Other applicable Public Works Clearances



REGIONAL MAP

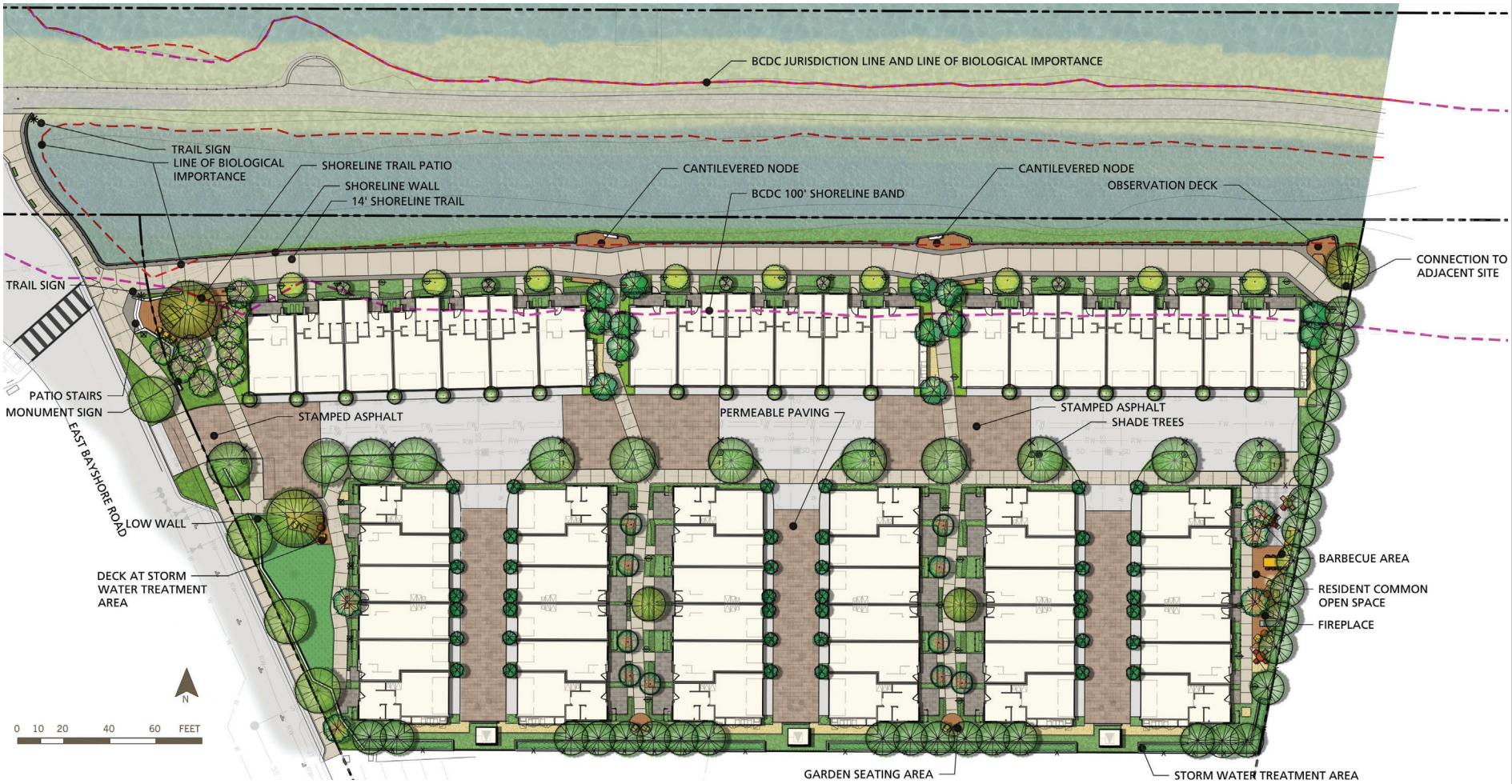
FIGURE 2.0-1



VICINITY MAP

FIGURE 2.0-2

AERIAL PHOTOGRAPH AND SURROUNDING LAND USES | FIGURE 2.0-3



Source: Dahlin Group Architecture, January 26, 2022.

SITE PLAN

FIGURE 2.0-4

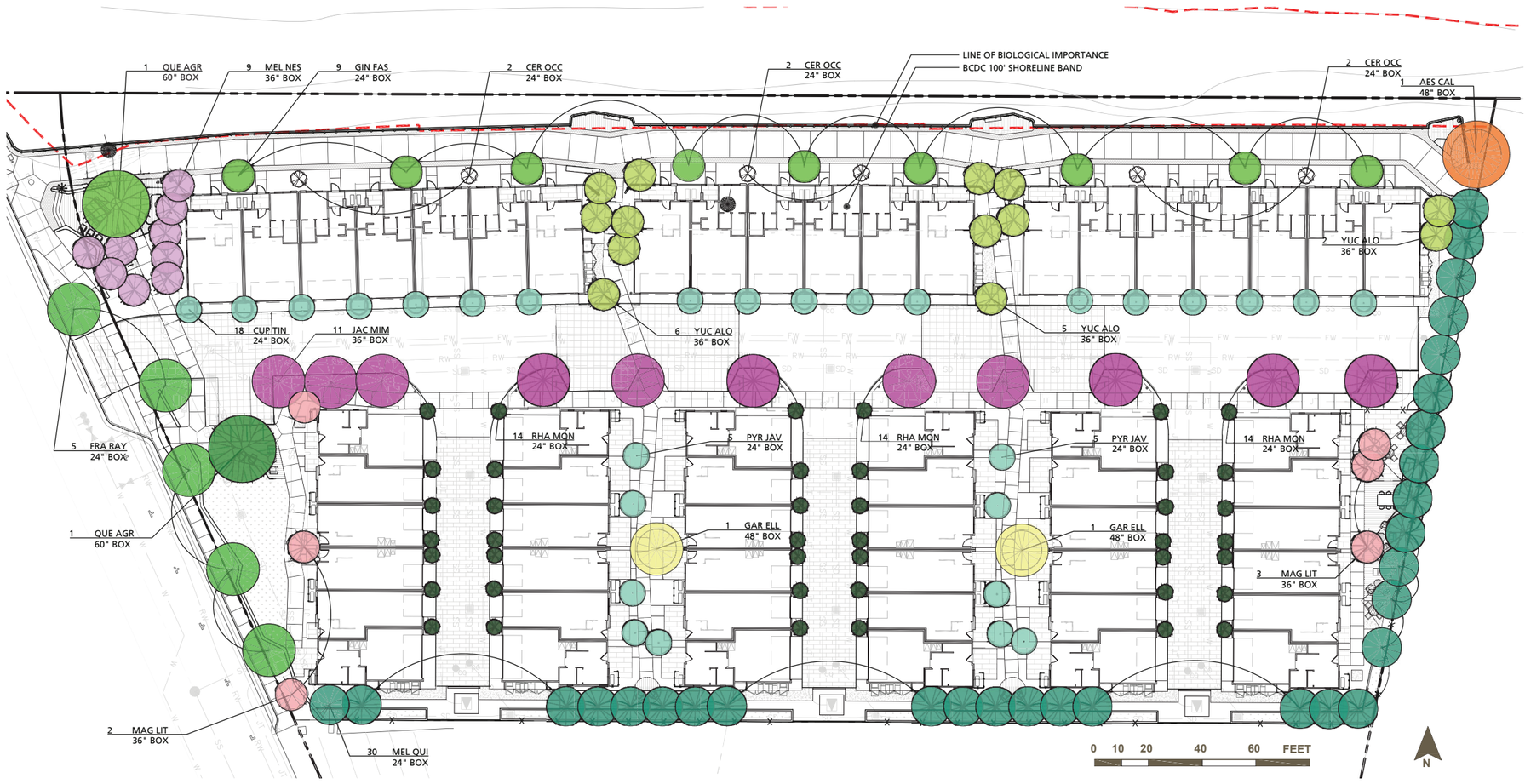
FRONT ELEVATION

REAR ELEVATION

LEFT ELEVATION (RIGHT SIM.)

Source: Dahlin Group Architecture, January 26, 2022.

BUILDING ELEVATIONS | FIGURE 2.0-5



Jacaranda mimosifolia | Garrya elliptica | Fraxinus o. 'Raywood' | Melaeuca nesophila | Quercus agrifolia | Magnolia 'Little Gem' | Ginkgo 'Fastigiata'

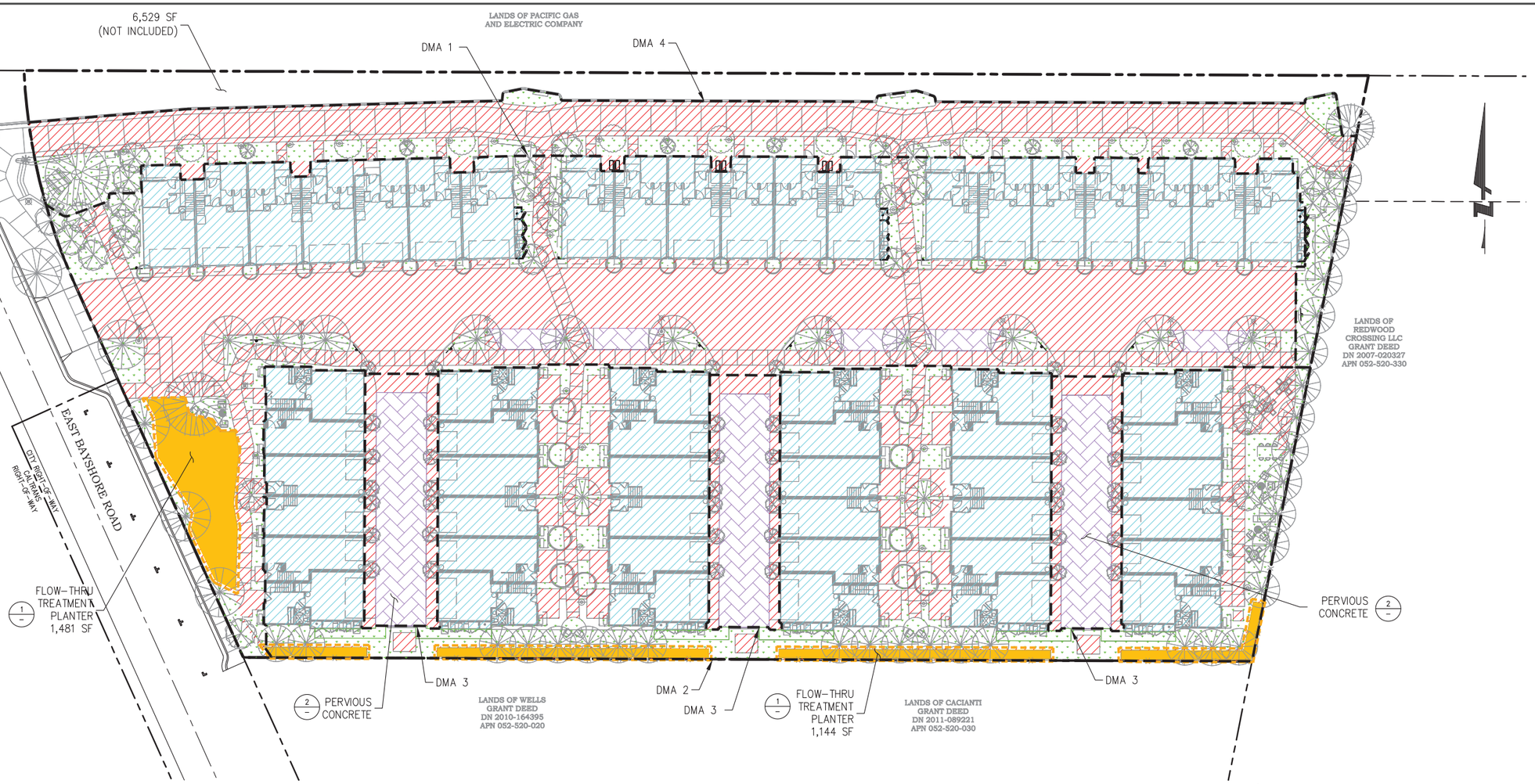
PLANT PALETTE

KEY	SIZE*	BOTANICAL NAME	COMMON NAME	COMMENTS/ SPACING**	WATER USE
TREES– Locations shown on Plan					
AES CAL	*	Aesculus californica	California Buckeye	standard	very low
CER OCC	*	Cercis occidentalis	Western Redbud	low branch	very low
CUP TIN	*	Cupressus s. 'Tiny Tower'	Tiny Towers Italian Cypress		low
GAR ELL	*	Garrya elliptica	Coast Silktassel	low branch	low
FRA RAY	*	Fraxinus o. 'Raywood'	Raywood Ash	Standard	medium
GIN FAS	*	Ginkgo biloba 'Fastigiata'	Fastigiata Ginkgo	Standard	medium
JAC MIM	*	Jacaranda mimosifolia	Jacaranda	standard	medium
KOE BIP	*	Koelreuteria bipinnata	Chinese Flame Tree	low branch	medium
ILE WIL	*	Ilex v. 'Will Fleming'	Columnar Holly	standard	medium
MAG LIT	*	Magnolia g. 'Little Gem'	Columnar Southern Magnolia	standard	medium
MAG BLA	*	Magnolia s. 'Black Tulip'	Black Tulip Saucer Magnolia	low branch	medium
MEL NES	*	Melaleuca nesophila	Pink Melaleuca	upright	low
MEL QUI	*	Melaleuca quinquenervia	Cajeput Tree		low
PYR JAV	*	Pyrus 'Javelin'	Javelin Pear		Medium
QUE AGR	*	Quercus agrifolia	Coast Live Oak		very low
RHA MON	*	Rhaphiolepis x 'Montic'	Magestic Beauty Indian Hawthorn		low
YUC ALO	*	Yucca aloifolia	Spanish Bayonet		very low
* As noted on plans or 15 Gallons					
SHRUBS–Individual plants not shown on plan					
ALS	1 gal	Aloe striata	Coral Aloe		low
ALM	5 gal	Alyogyne huegli 'Mood Indigo'	Blue Hibiscus		low
ARH	5 gal	Arctostaphylos 'Howard McMinn'	Howard McMinn Manzanita		low
CAL	5 gal	Callistemon citrinus 'Little John'	Dwarf Bottle Brush	36" o.c.	low
CEC	5 gal	Ceanothus 'Concha'	Concha Wild Lilac		low
COT	5 gal	Cordyline a. 'Torbay Dazzler'	Torbay Dazzler Cordyline		low
ERR	5 gal	Eremophila racemosa	Easter Egg Emu		low
GRD	5 gal	Grevillea rosmarinifolia 'Dwarf Form'	Rosemary Grevillea		low
GRO	5 gal	Grewia occidentalis	Lavender Starflower	42" o.c.	medium
LES	5 gal	Leptospermum s. 'Snow White'	New Zealand Tea Tree		medium
MYC	5 gal	Myrica californica	Pacific Wax Myrtle		medium
PIC	5 gal	Pittosporum crassifolia 'Nana'	Pittosporum	36" o.c.	medium
PIT	5 gal	Pittosporum t. 'Turner's Variegated Dwarf'	Pittosporum	36" o.c.	medium
POP	5 gal	Polygala fruticosa 'Petite Butterflies'	Petite Butterflies Sea Pea Shrub	36" o.c.	low
RHE	5 gal	Rhamnus c. 'Eve Case'	Coffeeberry		low
RHM	5 gal	Rhamnus c. 'Mound San Bruno'	Dwarf Coffeeberry	36" o.c.	low
ROC	5 gal	Rosa californica	California Rose	36" o.c.	low
PERENNIALS and GRASSES–Individual plants not shown on plan.					
AED	1 gal	Aeonium decorum	Aeonium	18" o.c.	low
ANH	5 gal	Anigozanthos hybrids	Kangaroo Paw	30" o.c.	low
ASM	1 gal	Asparagus d. 'Myers'	Myer Asparagus Fern	30" o.c.	medium
CAA	1 gal	Calamagrostis x acutiflora 'Stricta'	Feather Reed Grass	30" o.c.	medium
CAF	1 gal	Calamagrostis foliosa	Mendocino Reed Grass	18" o.c.	medium
CAT	1 gal	Carex tumulicola	Dwarf Sedge	18" o.c.	low
DEC	1 gal	Deschampsia caespitosa holciformis	Pacific Hair Grass	30" o.c.	low
DIB	1 gal	Dietes bicolor	Fortnight Lily	36" o.c.	low
FEC	1 gal	Festuca californica	California Fescue	18" o.c.	low
HES	1 gal	Helictotrichon sempervirens	Blue Oat Grass	24" o.c.	low
HEA	1 gal	Helleborus argutifolius	Corsican Hellebore	30" o.c.	low
HEC	1 gal	Hesperaloe campanulata 'MSWNNuevo Leon'	Lionheart Bell Flowered Yucca	36" o.c.	low
JUP	1 gal	Juncus patens	California Gray Rush	24" o.c.	low
KNL	1 gal	Kniphofia 'Little Maid'	Little Maid Poker Plant	30" o.c.	low
LIB	1 gal	Libertia peregrinans	Orange Libertia	36" o.c.	low
LIP	1 gal	Limonium perezii	Sea Lavender	24" o.c.	low
MUC	1 gal	Muhlenbergia capillaris "Pink Muhly"	Pink Muhly Grass	36" o.c.	low
MUR	1 gal	Muhlenbergia rigens	Deer Grass	36" o.c.	low
NEC	1 gal	Nephrolepis cordifolia	Southern Sword Fern	30" o.c.	medium
PEM	1 gal	Penstemon Margarita BOP	Foothill Penstemon	24" o.c.	low
PHF	1 gal	Phlomis fruticosa	Jerusalem Sage	30" o.c.	low
PHS	5 gal	Phormium 'Sea Jade'	New Zealand Flax		low
SAL	1 gal	Salvia leucantha	Mexican Sage	30" o.c.	low
GROUNDCOVERS and VINES					
CEY	5 gal	Ceanothus g. 'Yankee Point'	Carmel Creeper	42" o.c.	low
CLC	5 gal	Clytostoma callistegioides	Violet Trumpet Vine	42" o.c.	medium
ERG	1 gal	Erigeron glaucus	Seaside Daisy	18" o.c.	low
FIP	5 gal	Ficus pumila	Creeping Fig	42" o.c.	medium
FRC	1 gal	Fragaria chiloensis	Beach Strawberry	18" o.c.	medium
MAR	1 gal	Mahonia repens	Creeping Mahonia	24" o.c.	low
MYP	1 gal	Myoporum parvifolium 'Pink'	Pink Australian Racer	30" o.c.	low
SEM	1 gal	Senecio mandraliscae	Kleinia	24" o.c.	low
SOJ	5 gal	Solanum jasminoides	Potato Vine	42" o.c.	medium

Source: Dahlin Group Architecture, January 26, 2022.

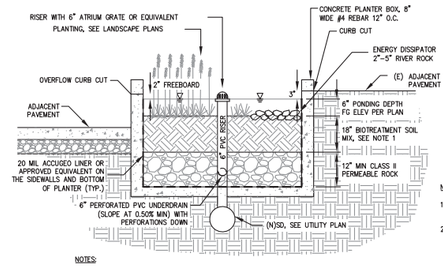
LANDSCAPE PLAN

FIGURE 2.0-6



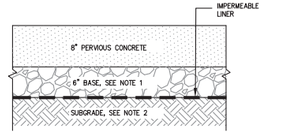
STORM WATER AREA CALCS						
	EXISTING AREA	DMA 1	DMA 2	DMA 3	DMA 4	PROPOSED AREA
PERVIOUS	25,160 SF	7,215 SF	8,165 SF	5,570 SF	5,190 SF	26,140 SF
IMPERVIOUS	78,985 SF	36,225 SF	30,270 SF	3,020 SF	8,490 SF	78,005 SF
NET	104,145 SF	43,440 SF	38,435 SF	8,590 SF	13,680 SF	104,145 SF
PROVIDED PERMEABLE PAVEMENT	–	1,107 SF	–	5,570 SF	–	6,677 SF
REQUIRED SELF-RETAINING AREA	–	772*0.5 = 386 SF	5,310*0.5 = 2,655 SF	3,020*0.5 = 1,510 SF	8,490*0.5 = 4,245 SF	8,796 SF
PROVIDED SELF-RETAINING AREA	–	1,251 SF	7,020 SF	5,570 SF	5,190 SF	19,031 SF
REQUIRED BIO TREATMENT AREA	–	36,225*4% = 1,449 SF	24,960=*4% = 998 SF	–	–	2,447 SF
PROVIDED BIO TREATMENT AREA	–	1,481 SF	1,144 SF	–	–	2,625 SF

LEGEND:
- IMPERVIOUS SURFACE – ROOF
- IMPERVIOUS SURFACE – GROUND
- PERVIOUS SURFACE – DRIVEWAY
- LANDSCAPING
- FLOW-THRU TREATMENT PLANTER



NOTES:
1. BIORETENTION SOIL MEDIA PER SAN MATEO COUNTY C.3 TECHNICAL GUIDANCE, VERSION 5.0, APPENDIX K, ENTITLED "BIORETENTION SOIL MIX SPECIFICATIONS", DATED JUNE 2016.
2. IF AN EXTENDED FOUNDATION IS FOUND UNDER THE EXISTING RETAINING WALL, DO NOT CUT OR DEMOLISH THE FOUNDATION, AND NOTIFY THE CIVIL ENGINEER.

1 – FLOW-THRU TREATMENT PLANTER
NTS



NOTES:
1. BASE IS TO BE 6" LAYER OF ¾" CRUSHED DRAIN ROCK, ASTM #57, CALTRANS CLASS 1 TYPE B PERMEABLE ROCK, OR APPROVED EQUIVALENT. MAKE TWO PASSES WITH VIBRATORY PLATE OR ROLLER AND ADJUST GRADE AS NEEDED.
2. THE UPPER 6" OF SUBGRADE SHALL BE COMPACTED TO AT LEAST 90 PERCENT RELATIVE COMPACTION, PER GEOTECHNICAL RECOMMENDATIONS. IF OVERCOMPACTED FROM HEAVY EQUIPMENT, SCARIFY AND RECOMPACT TOP 6".

2 – PERVIOUS CONCRETE
NTS

GRAPHIC SCALE

(IN FEET)

Source: BKF Engineers, June 24, 2021.

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	3.11	Land Use and Planning
3.2	Agriculture and Forestry Resources	3.12	Mineral Resources
3.3	Air Quality	3.13	Noise
3.4	Biological Resources	3.14	Population and Housing
3.5	Cultural Resources	3.15	Public Services
3.6	Energy	3.16	Recreation
3.7	Geology and Soils	3.17	Transportation
3.8	Greenhouse Gas Emissions	3.18	Tribal Cultural Resources
3.9	Hazards and Hazardous Materials	3.19	Utilities and Service Systems
3.10	Hydrology and Water Quality	3.20	Wildfire

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 project site 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)). This EIR uses the list of projects approach.

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

Location	Description
Approved But Not Yet Constructed/Occupied	
610 Walnut Street	65,080 square feet office
1180 Main Street	109,375 square feet office
353 Main Street	125 affordable residential units
1548 Maple Street	131 residential units
1401 Broadway and 2201 Bay Road	520 residential units, 420,000 square feet office, 26,000 square feet retail
SM County Government Center in Downtown Redwood City	156,000 square feet office
851 Main Street	78,832 square feet office, 6,900 square feet retail
1601 El Camino Real	540 residential units (incl. 147 affordable), 530,000 square feet of office, 28,841 square feet of retail, and a 8,367 square feet child care facility.
690 Veterans Boulevard	91-unit hotel
Pending	
Sequoia Station Transit Sub-Area Plan (1057 El Camino Real)	440 residential dwelling units and 1,635,000 square feet office
557 East Bayshore Road	480 multifamily residential dwelling units and a 97,101 square foot sport fitness center
1125 Arguello Street	300,000 square feet of office space, 33 residential dwelling units, and a child care center
Harbor View (320 – 350 Blomquist Street)	745,150 square feet office (including 35,000 square feet amenities space) and 20,000 square feet community space
1330 El Camino Real	130 residential dwelling units

Table 3.0-1: Cumulative Projects List	
Location	**Description**
800 Main Street	83 hotel rooms, ground floor retail and restaurant space, rooftop bar, and basement amenities
2300 Broadway	200,000 square feet office, 15,000 square feet retail space, and 5,000 square feet of open space
901 El Camino Real	169,686 square feet office, two-story 4,462 square feet teen center, and 4,000 square feet public open space
651 El Camino Real	300 residential dwelling units with a 12,000 square foot space for America Legion
750 Bradford Street	70,000 square feet office building and 87 workforce housing units
601 Allerton Street	80,579 square feet of office space, 635 square feet of ground floor retail space, two community futsal courts, and a rooftop clubhouse

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	Project site and adjacent parcels
Agriculture and Forestry Resources	Countywide
Air Quality	San Francisco Bay Area Air Basin
Biological Resources	Project site and surrounding area
Cultural Resources	Project site and adjacent parcels
Energy	Energy provider's territory
Geology and Soils	Project site and adjacent parcels
GHGs	Planet-wide
Hazards and Hazardous Materials	Project site and adjacent parcels
Hydrology and Water Quality	Cordilleras Creek watershed
Land Use and Planning/Population and Housing	Citywide
Minerals	Identified mineral recovery or resource area
Noise and Vibration	Project site and adjacent parcels
Public Services and Recreation	Citywide

Table 3.0-2: Geographic Considerations in Cumulative Analysis	
Resource Area	**Geographic Area**
Transportation/Traffic	Citywide
Tribal Cultural Resources	Project site and adjacent parcels
Utilities and Service Systems	Citywide
Wildfire	Within or adjacent to the wildfire hazard zone

3.1 AESTHETICS

3.1.1 Environmental Setting

3.1.1.1 *Regulatory Framework*

State

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. There are no state-designated scenic highways in Redwood City. Interstate 280 from the San Mateo County line to State Route (SR) 17, which includes segments just west of Redwood City limits, is an eligible, but not officially designated, State Scenic Highway.[3]

Regional and Local

San Francisco Bay Plan

The *San Francisco Bay Plan* (Bay Plan) is a policy tool that allows the BCDC to "exercise its authority to issue or deny permit applications for placing fill, extracting materials, or changing the use of any land, water, or structures within the area of its jurisdiction," which includes the San Francisco Bay and lands within 100 feet of its shoreline.

The Bay Plan serves as the guide for BCDC and includes policies applicable to visual and aesthetic resources within the City. The Bay Plan recommends that urban development be clustered, so as to maximize views of the San Francisco Bay and to conserve natural landscape features and maximize shoreline access.

The Appearance, Design and Scenic Views Chapter of the Bay Plan contain several policies pertaining to visual quality and aesthetic character, including:

> *Policy 1:* To enhance the visual quality of development around the Bay and to take maximum advantage of the attractive setting it provides, the shore of the Bay should be developed in accordance with the Public Access Design Guidelines.
>
> *Policy 2:* All Bayfront development should be designed to enhance the pleasure of the user or viewer of the Bay. Maximum efforts should be made to provide, enhance, or preserve views of the Bay and shoreline, especially from public areas, from the Bay itself, and from the opposite shore. To this end, planning of waterfront development should include participation by professionals who are knowledgeable of the Commissions' concerns, such as landscape architects, urban designers, or architects, working in conjunction with engineers and professionals in other fields.

[3] California Department of Transportation. "Scenic Highways.". Accessed February 2, 2022. https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways

Policy 4: Structures and facilities that do not take advantage of or visually complement the Bay should be located and designed so as not to impact visually on the Bay and shoreline.

Policy 8: Shoreline developments should be built in clusters, leaving open area around them to permit more frequent views of the Bay. Developments along the shores of tributary waters should be Bay-related and should be designed to preserve and enhance views along the waterway, so as to provide maximum visual contact with the Bay.

Policy 14: Views of the Bay from vista points and from roads should be maintained by appropriate arrangements of heights of all development and landscaping between the view areas and the water. In this regard, particular attention should be given to all waterfront locations, areas below vista points, and areas along roads that provide good views of the Bay for travelers, particularly areas below roads coming over ridges and providing a "first view" of the Bay.

Redwood City General Plan

The Redwood City General Plan (General Plan) reflects the community's shared values of what Redwood City is today and plans to be in the future years. Often referred to as the community's "blueprint," the General Plan establishes the basis for zoning regulations and provides guidance in the evaluation of development proposals. The General Plan includes policies for the purpose of avoiding or mitigating impacts from planned development in the City. The policies below are specific to aesthetics and are applicable to the proposed project.

Policy	Description
The Built Environment	
BE-1.1	Maintain and enhance the beneficial and unique character of the different neighborhoods, corridors, and centers, and open spaces that define Redwood City.
BE-1.5	Require that new and renovated buildings be designed to avoid styles, colors, and materials that negatively impact the environment or the design character of the neighborhood, corridor, and center in which they are located.
BE-1.8	Require that new projects are integrated as seamlessly as possible into surrounding development, creating extensions of the urban fabric.
BE-1.9	Carefully consider new shade, shadow, light, and glare effects from proposed development projects and comprehensive plans.
BE-3.3	Require new development to provide engaging, well-landscaped outdoor spaces that invite and support outdoor activities for residents, especially areas viewed or accessible by the public.
BE-10.6	Require that development along the U.S. 101 frontage include design elements, landscaping, and signage that create a positive aesthetic condition, as viewed from the freeway corridor.
BE-44.1	Reduce the visual impact of aboveground and overhead utilities, including electric lines, by working with Pacific Gas and Electric Company (PG&E) to maximize opportunities to place utilities underground

Redwood City Zoning Ordinance

The Redwood City Zoning Ordinance provides standards that direct the visual character and quality of development associated with related land uses (Article 45.8, Architectural Standards). Height and architectural standards are defined for the various zoning districts throughout the City to "protect and enhance the natural beauty of the environment, provide for the orderly and harmonious appearance of structures and grounds."

Redwood City Architectural Advisory Committee

The City's Architectural Advisory Committee (AAC), as established by Resolution No. 11497, is responsible for addressing the architectural design and form of structures in the City. The AAC advises the City Council, Planning Commission, and Zoning Administrator on matters concerning building and landscape architecture, site design, and signs. The AAC also provides other recommendations pertaining to architectural matters regarding private and public projects in the City as deemed appropriate.

3.1.1.2 *Existing Conditions*

Existing Land Use

The site is currently developed with several corrugated metal warehouse buildings and outdoor storage facilities associated with an existing industrial facility (see Photo 1 and Photo 2). The remainder of the site is an undeveloped vacant lot with minimal landscaping consisting of trees and small shrubs (see Photo 3). Regional, vicinity and aerial maps of the site are shown on Figures 2.0-1, 2.0-2, and 2.0-3. The project site is visible from the Bike Trail Bair Island Wildlife (Bay Trail), as shown in Photo 4.

Surrounding Land Uses

The site is bordered by E. Bayshore Road to the west, a car dealership to the south, an unoccupied former movie theater property to the east, and Smith Slough and Bair Island to the north. The project area is generally level with low lying elevations along the bayside.

North of the project site is the Smith Slough and Bair Island. Views of a portion of Smith Slough are visible from the northern portion of the project site. Bair Island is a 3,000-acre series of wetlands along the Bay shoreline in Redwood City. The San Francisco Bay Trail is located immediately north of the project site on top of a levee that separates the site from an unnamed slough (north of the San Francisco Bay Trail/levee) that forms the southern boundary of Inner Bair Island. A muted tidal drainage ditch is located between the Bay Trail and the developed area of the project site. Views of the San Francisco Bay Trail are visible from the northern portion of the project site. The channel of water separating the north end of the project site to Bair Island is the Smith Slough. The slough is a large waterway with large expanses of vegetation and marshland on both sides. The vegetation varies depending on the distance from the water but is primarily low lying grasses and larger shrubs with no

trees. Specifically, the site contains the following habitats: muted tidal marsh,[4] ruderal ditch bank grassland habitat, ruderal grassland, and developed/landscaped habitat.

Scenic Vistas and Resources

Designated scenic resources in the project area include the San Francisco Bay, and its associated baylands, sloughs, and marshes, and the urbanized San Francisco Bay Peninsula.[5] These resources are visible primarily from four points within the elevated hillsides; the Easter Cross, Easter Bowl, Canada College, and the Edgewood County Park. The project site and the surrounding area are relatively flat, and the site is visible from the immediate area. The site is not distinguishable from the noted scenic viewpoints.

Scenic vistas in the City are located in the southern and western portions of the City within the hillside neighborhoods.[6] There are no state-designated scenic highways in Redwood City.[7] The nearest designated scenic highway is Interstate 280 (I-280), approximately 3.75 miles west of the project site. Given the distance between I-280 and the project site, as well as the intervening topography and urban development, the project site is not visible from I-280.

[4] A muted tidal marsh is a marsh where culverts or other obstructions reduce the range of tides but still allow frequent inundation.
[5] City of Redwood City. Redwood City New General Plan Draft EIR. Chapter 4.1 Aesthetics. May 2010.
[6] City of Redwood City. Redwood City New General Plan Draft EIR. Page 4.1-23. May 2010.
[7] California Department of Transportation. ”California Scenic Highway Mapping System.” http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm. Accessed February 1, 2022.

Photo 1: View of Project Site via E. Bayshore Road, Facing East

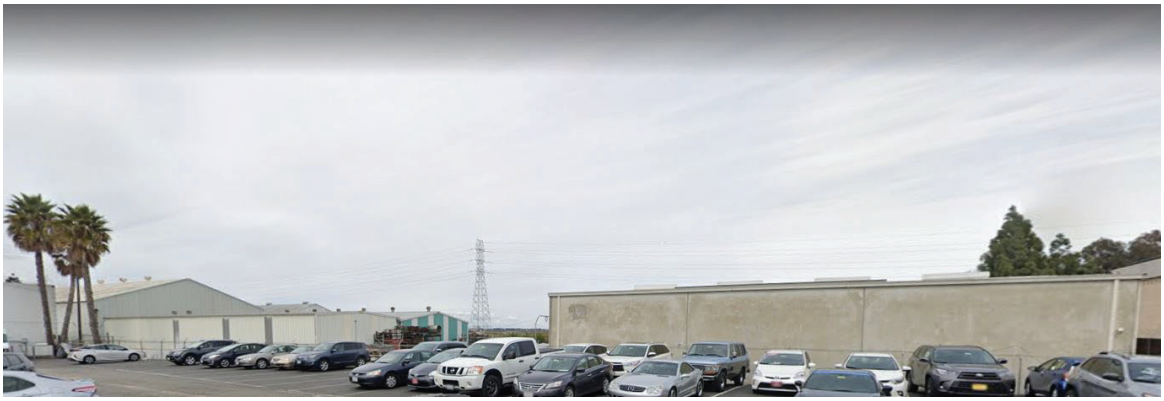


Photo 2: View of Project Site from Neighboring Property at 505 E. Bayshore Road, Facing North

Photo 3: View of Site Landscaping from Neighboring Property at 505 E. Bayshore Road, Facing North

Photo 4: View of Bay Trail and Project Site from E. Bayshore Road, Facing East

Light and Glare

The site generates light from facility operations and nighttime security lighting. In the immediate area, lighting includes streetlights, parking lot lights, building 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?[8] 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 *Project Impacts*

Impact AES-1:	The project would not have a substantial adverse effect on a scenic vista. **(No Impact)**

Scenic vistas in the City are located in the southern and western portions of the City within the hillside neighborhoods.[9] The project site is not located in these portions of the City and, therefore, is not located within a scenic vista. As a result, the project would not affect a scenic vista.

Scenic views are located in the surrounding area, consisting primarily of views of the San Francisco Bay along the Bay Trail and portions of the Bayshore Freeway. The site is currently developed with several corrugated metal warehouse buildings and outdoor storage facilities which partially block views of the Bay from the Bayshore Freeway. Construction of the project would not substantially alter views of the Bay from the Bayshore Freeway. The project is located on south side of the Bay Trail and, as a result, would not affect views of the Bay from the Bay Trail. No adverse effect on a scenic vista would occur. **(No Impact)**

[8] Public views are those that are experienced from publicly accessible vantage points.
[9] City of Redwood City. Redwood City New General Plan Draft EIR. Page 4.1-23. May 2010.

Impact AES-2:	The project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. **(No Impact)**

As discussed in Section 3.1.1.2, the project site is not within a state scenic highway and is not visible from the nearest designated scenic highway (I-280). The project would not damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. **(No Impact)**

Impact AES-3:	The project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings. The project would not conflict with applicable zoning and other regulations governing scenic quality. **(Less than Significant Impact)**

The project would modify the existing visual character of the site and its surroundings by increasing the height on-site in relation to the existing development. The project site is located in an urbanized area and would replace the current buildings with 56 townhouses within nine three-story buildings totaling approximately 89,674 square feet. The buildings would reach maximum heights of 38 feet and would be setback at least 29 feet from the northern property line, 10 feet from the eastern property line, and 11 feet from the southern and western property lines. The project proposes 28,714 square feet of common open space, including an amenity area for residents on the eastern portion of the site. New landscaping would also be planted throughout the site and along the site perimeter.

While the project would introduce visually prominent residential development on the site, the proposed structures would be similar in scale to existing structures on nearby properties, such as the Courtyard by Marriot Hotel to the southeast and the Credit Sesame business center to the south. The project would be subject to the review of the Architectural Advisory Committee to ensure the project would be visually compatible with the existing area pursuant to General Plan policies BE-1.1, BE-1.5, BE-1.8, and BE-1.9 listed in Section 3.1.1.1 by requiring the project be designed to include complimentary styles, colors, and materials of the surrounding area. Additionally, the project would comply with the Bay Plan policies applicable to visual and aesthetic resources, such as leaving open area around the proposed development to permit more frequent views of the Bay and including professionals such as landscape architects, urban designers, or architects in the planning of the development.

As discussed above under Impact AES-2, the project would not conflict with the Scenic Highways Program.

For the reasons described above, the proposed project would not degrade the visual character of the site or surrounding areas, nor would it conflict with any zoning or regulation governing scenic quality. **(Less Than Significant Impact)**

Impact AES-4:	The project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. **(Less than Significant Impact)**

The site is currently developed with several corrugated metal warehouse buildings and outdoor storage facilities associated with an existing industrial facility. The remainder of the site is an undeveloped vacant lot. The site generates light from facility operations and nighttime security lighting. The project would redevelop the site with new buildings and include similar sources of light for nighttime security, with lights illuminating the parking lots, parking garages, buildings, and pedestrian walkways. The project would adhere to Title 24 Building Energy Efficiency Standards to reduce light pollution, light trespass, and glare.

A public trail would be constructed along the northern boundary of the site, providing access between E. Bayshore Road and a planned public trail segment to be located on the adjacent property to the east, expanding and enhancing public access along the shoreline. Pedestrian pathways would be located throughout the site, connecting the proposed buildings to the public trail and E. Bayshore Road. In the evening, the walkway could be a new source of light. While the project would potentially introduce new sources of nighttime light, lights would be shielded to direct light downwards to ensure that lighting does not spill over onto adjacent properties, and negligible amounts of spill light would not occur at the property boundaries.

While the proposed building would include windows, the design of the building does not include large uninterrupted expansions of glass or highly reflective materials such as mirrored glass.

Furthermore, as a condition of approval, consistent with the certified Redwood City General Plan EIR (General Plan EIR) Mitigation Measure 4.1-5, the project would implement the following measure:

> **Condition of Approval**
>
> General Plan EIR Mitigation Measure 4.1-5: All new development and redevelopment shall be in compliance with Title 24 Lighting Zone (LZ-3) requirements and submit lighting and photometric site plans for City review and approval prior to issuance of individual building permits.[10]

For the reasons described above, the proposed project would not create a substantial source of daytime or nighttime glare. The lighting would be designed to use modern technology, as previously described, to reduce spill light and visibility of the lights. **(Less Than Significant Impact)**

[10] Redwood City. *A New General Plan for Redwood City Draft Environmental Impact Report.* May 2010. Certified in October 2010. Page 4.1-50.

3.1.2.2 *Cumulative Impacts*

Impact AES-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant aesthetics impact. **(Less than Significant Cumulative Impact)**

The geographic area for cumulative aesthetic impacts is the immediate project vicinity.

Scenic Vista, Scenic Highway, and Applicable Zoning and Other Regulations

As discussed under Impact AES-1 through AES-3, the project would have no impact on a scenic vista, state scenic highway, or applicable zoning and other regulations governing scenic quality. Therefore, the project would not contribute to cumulative impacts on those resources. **(No Cumulative Impact)**

Light and Glare

The proposed project would not result in a significant cumulative source of substantial light and glare which would adversely affect day or nighttime views in the area. The project, along with other planned and pending projects in the area, is required to comply with Title 24 Building Energy Efficiency Standards to reduce light pollution, light trespass, and glare and, per General Plan EIR Mitigation Measure 4.1-5, submit lighting and photometric site plans for City review and approval to ensure light and glare impacts would be reduced to a less than significant level. **(Less than Significant Cumulative Impact)**

3.2 AGRICULTURE AND FORESTRY RESOURCES

3.2.1 Environmental Setting

3.2.1.1 *Regulatory Framework*

State

Farmland Mapping and Monitoring Program

The California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) assesses the location, quality, and quantity of agricultural land and conversion of these lands over time. Agricultural land is rated according to soil quality and irrigation status. The best quality land is identified as Prime Farmland. In CEQA analyses, the FMMP classifications and published county maps are used, in part, to identify whether agricultural resources that could be affected are present on-site or in the project area.[11]

California Land Conservation Act

The California Land Conservation Act (Williamson Act) enables local governments to enter into contracts with private landowners to restrict parcels of land to agricultural or related open space uses. In return, landowners receive lower property tax assessments. In CEQA analyses, identification of properties that are under a Williamson Act contract is used to also identify sites that may contain agricultural resources or are zoned for agricultural uses.[12]

Fire and Resource Assessment Program

The California Department of Forestry and Fire Protection (CAL FIRE) identifies forest land, timberland, and lands zoned for timberland production that can (or do) support forestry resources.[13] Programs such as CAL FIRE's Fire and Resource Assessment Program and are used to identify whether forest land, timberland, or timberland production areas that could be affected are located on or adjacent to a project site.[14]

3.2.1.2 *Existing Conditions*

The site is currently developed with several corrugated metal warehouse buildings and outdoor storage facilities associated with an existing industrial facility. The remainder of the site is an undeveloped vacant lot. The site is not designated agricultural or forest land and is located within a developed urban area with no agricultural or forestry land nearby. The *San Mateo County Important*

[11] California Department of Conservation. "Farmland Mapping and Monitoring Program." Accessed January 4, 2022. http://www.conservation.ca.gov/dlrp/fmmp/Pages/Index.aspx.
[12] California Department of Conservation. "Williamson Act." http://www.conservation.ca.gov/dlrp/lca.
[13] Forest Land is land that can support 10 percent native tree cover and allows for management of forest resources (California Public Resources Code Section 12220(g)); Timberland is land not owned by the federal government or designated as experimental forest land that is available for, and capable of, growing trees to produce lumber and other products, including Christmas trees (California Public Resources Code Section 4526); and Timberland Production is land used for growing and harvesting timber and compatible uses (Government Code Section 51104(g)).
[14] California Department of Forestry and Fire Protection. "Fire and Resource Assessment Program." Accessed January 4, 2022. http://frap.fire.ca.gov/.

Farmlands 2018 Map designates the project site as "Urban and Built-Up Land", which is defined as land with at least six structures per 10 acres. Common examples of "Urban and Built-Up Land" are residential, institutional, industrial, commercial, landfill, golf course, airports, and other utility uses.[15]

3.2.2 Impact Discussion

For the purpose of determining the significance of the project's impact on agriculture and forestry resources, would the project:

1) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?
2) Conflict with existing zoning for agricultural use, or a Williamson Act contract?
3) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?
4) Result in a loss of forest land or conversion of forest land to non-forest use?
5) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

3.2.2.1 *Project Impacts*

Impact AG-1:	The project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. **(No Impact)**

As discussed in Section 3.2.1.2, the project site is not designated as farmland. The project site and surrounding properties are designated and developed with urban uses. For these reasons, the project would not convert designated farmland to non-agricultural use. **(No Impact)**

Impact AG-2:	The project would not conflict with existing zoning for agricultural use, or a Williamson Act contract. **(No Impact)**

The project site is not zoned for agricultural use, nor is it subject of a Williamson Act contract. The project, therefore, would not conflict with zoning for agricultural use or a Williamson Act contract. **(No Impact)**

[15] California Natural Resources Agency. *San Mateo County Important Farmland 2018*. Accessed January 4, 2022. https://www.conservation.ca.gov/dlrp/fmmp/Pages/SanMateo.aspx

Impact AG-3:	The project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. **(No Impact)**

The project site and surrounding properties are not zoned for forest land or timberland. For this reason, the project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. **(No Impact)**

Impact AG-4:	The project would not result in a loss of forest land or conversion of forest land to non-forest use. **(No Impact)**

The project site and surrounding properties are developed with urban uses or consist of open baylands, not forest land. For this reason, the development of the project would not result in the loss of forest land or conversion of forest land to non-forest use. **(No Impact)**

Impact AG-5:	The project would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use. **(No Impact)**

The project site is not designated agricultural or forest land and is located within a developed urban area adjacent to San Francisco Bay with no agricultural or forestry land nearby. As a result, implementation of the proposed project would not result in the conversion of farmland to non-agricultural use or forest land to non-forest uses. **(No Impact)**

3.2.2.2 *Cumulative Impacts*

Impact AG-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant agricultural and forestry resources impact. **(No Cumulative Impact)**

The geographic area for cumulative agricultural and forestry resource impacts is the County of San Mateo. As discussed under Impacts AG-1 through AG-5, the project would have no impact on agricultural or forestry resources. The project, therefore, would not contribute to a cumulative impact on agricultural or forestry resources. **(No Cumulative Impact)**

3.3 AIR QUALITY

The discussion in this section is based in part on a project-specific Air Quality and Greenhouse Gas (GHG) Assessment prepared by Illingworth & Rodkin, Inc. dated March 23, 2022. This report is attached to this Draft EIR as Appendix B.

3.3.1 Environmental Setting

3.3.1.1 *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.[16] 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 3.3-1. The most commonly regulated criteria pollutants in the Bay Area are discussed further below.

Table 3.3-1: 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. Controlling the emissions of these precursor pollutants is the focus of the Bay Area's attempts to

[16] 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.

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).[17] 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.

3.3.1.2 *Regulatory Framework*

Federal and State

Clean Air Act

At the federal level, the United States Environmental Protection Agency (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.

[17] California Air Resources Board. "Overview: Diesel Exhaust and Health." Accessed September 16, 2020. https://www.arb.ca.gov/research/diesel/diesel-health.htm.

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 Diesel Particulate Matter (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.[18]

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.

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

Community Air Risk Evaluation Program

Under the Community Air Risk Evaluation (CARE) program, BAAQMD has identified areas with high TAC emissions, and sensitive populations that could be affected by them, and uses this information to establish policies and programs to reduce TAC emissions and exposures. Impacted communities identified to date are located in Concord, Richmond/San Pablo, San José, eastern San Francisco, western Alameda County, Vallejo, San Rafael, and Pittsburg/Antioch. The main objectives of the program are to:

- Evaluate health risks associated with exposure to TACs from stationary and mobile sources;
- Assess potential exposures to sensitive receptors and identify impacted communities;
- Prioritize TAC reduction measures for significant sources in impacted communities; and
- Develop and implement mitigation measures to improve air quality in impacted communities.

Local

Redwood City General Plan

The following policies found in the *City of Redwood City 2010 General Plan* (General Plan) are applicable to the proposed project:

Policy	Description
Public Safety	
PS-1.5	Require projects that generate potentially significant levels of air pollutants to incorporate the most effective air quality mitigation into project design, as feasible.
PS-2.1	Consider surrounding land uses when locating sensitive receptors such as schools, hospitals, and residential uses so they are not unreasonably exposed to uses that generate pollutants considered detrimental to human health.
PS-2.6	Require all land uses proposed within 500 feet of U.S. 101, El Camino Real, and Woodside Road that will house, accommodate, or serve sensitive receptors to incorporate appropriate design and construction features (e.g. filters on HVAC systems) that reduce potential exposure of person to pollutants

3.3.1.3 *Existing Conditions*

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 nonattainment 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.

Existing Air Pollutant Levels

BAAQMD monitors air pollution at various sites within the Bay Area. A monitoring station is located at 897 Barron Avenue in Redwood City, approximately 1.8 miles southeast of the site. Pollutant monitoring results for the years 2017 to 2019 at the Redwood City monitoring station are shown in Table 3.3-2.

Table 3.3-2: Ambient Air Quality Standards Violations and Highest Concentrations

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

Source: BAAQMD. Air Pollution Summaries (2017-2019). Available at: http://www.baaqmd.gov/about-air-quality/air-quality-summaries.

Sensitive Receptors

The closest existing sensitive receptors to the site are the residences located along Bair Island Road and McNeill Drive roughly 1,350 feet east of the site. For the purposes of this analysis, however, the proposed residences that will be constructed as part of the pending project at 557 East Bayshore Road, directly adjacent to the eastern boundary of the project site, are considered the closest sensitive receptors. While the 557 East Bayshore Road project has not started construction yet, due to the concurrent processing of these two projects it is conservatively assumed that residences within the 557 East Bayshore Road site may be occupied prior to the completion of this project. Because the 557 East Bayshore project is located closer to the project site than the existing residences along Bair Island Road and McNeill Drive, and in the same wind direction, the level of pollutants and associated health risks and hazards affecting the existing residences would be less than or equal to what is forecast for the 557 East Bayshore project.

Odors

Common sources of odors and odor complaints include wastewater treatment plants, transfer stations, coffee roasters, painting/coating operations, and landfills. Significant sources of offending odors are typically identified based on complaint histories received and compiled by BAAQMD. Typical large sources of odors that result in complaints are wastewater treatment facilities, landfills including composting operations, food processing facilities, and chemical plants. Other sources, such as restaurants, paint or body shops, and coffee roasters typically result in localized sources of odors. The project site is in a commercial and residential area and is not surrounded by facilities that produce substantial odors.

3.3.2 Impact Discussion

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

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

3.3.2.1 *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 Redwood City 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 BAAQMD CEQA Air Quality thresholds used in this analysis are identified in Table 3.3-2 below.

Table 3.3-2: BAAQMD Air Quality Significance Thresholds			
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)	

3.3.2.2 *Project Impacts*

Impact AIR-1: The project would not conflict with or obstruct implementation of the applicable air quality plan**. (Less than Significant Impact)**

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

The project would not conflict with the 2017 CAP because it would not result in construction or operational criteria air pollutant emissions above the BAAQMD CEQA Air Quality Guidelines Operational Criteria Pollutant impact thresholds with inclusion of best management practices and is considered urban infill. Additionally, the project would be in compliance with all applicable BAAQMD regulations. The project, therefore, would not conflict with or obstruct implementation of the applicable air quality plan. **(Less than Significant Impact)**

Construction Period Emissions – Criteria Pollutants

The California Emissions Estimator model (CalEEMod) Version 2016.3.2 was used to estimate annual emissions from construction activities. The proposed land uses of the project were input into CalEEMod. Table 3.3-3 shows the construction period emissions associated with the proposed project.[19]

Table 3.3-3: Construction Period Emissions				
Scenario	**ROG**	**NOx**	**PM_{10} Exhaust**	**$PM_{2.5}$ Exhaust**
Construction Emissions Per Year (tons)				
2022	0.07	0.67	0.00	0.03
2023	0.73	0.66	0.04	0.03
Annualized Daily Construction Emissions (pounds/day)				
2022 (132 construction workdays)	1.01	10.22	0.48	0.42
2023 (262 construction workdays)	5.53	5.01	0.27	0.24
BAAQMD Thresholds	*54*	*54*	*82*	*54*
Exceed Threshold?	**No**	**No**	**No**	**No**

As shown in Table 3.3-3 construction period criteria pollutant emissions associated with the project would not exceed the BAAQMD significance thresholds. Therefore, the project would not result in a significant impact for construction emissions. The proposed project would not conflict with or obstruct implementation of the Bay Area 2017 CAP and impacts would be less than significant.

Operational Period Emissions – Criteria Pollutants

Operational period criteria pollutant emissions associated with the project would be generated primarily from vehicles driven by future residents. CalEEMod was used to estimate the emissions from operation of the project assuming full build out. The earliest the project would be constructed and operational would be 2024. Any emissions associated with build out later than 2024 would be lower due to assumed efficiencies over time. The assumptions and results are described further in Appendix B of this document. The estimated daily operational period emissions from the proposed project are summarized in Table 3.3- below.

[19] As noted in Section 2.2.1.4 of the EIR, construction is anticipated to begin in 2023 and end in 2024. However, at the time the Air Quality and GHG Assessment was prepared (refer to Appendix B), construction was anticipated to begin in 2022 and end in 2023. As a result, the emissions estimates in the EIR are based on a 2022 construction start date. This represents a conservative estimate of project's construction emissions because the modeling software used to estimate construction emissions assumes a slightly older construction fleet for years 2022-2023 than for 2023-2024, resulting in slightly higher emissions estimates.

Table 3.3-6: Summary of Project Operational Emissions				
Scenario	**ROG**	**NO_x**	**PM_{10}**	**$PM_{2.5}$**
2024 Project Operational Emissions (tons/year)	0.71	0.19	0.41	0.11
2022 Existing Use Operational Emissions (tons/year)	(0.16)	(0.03)	(0.05)	(0.01)
Net Total Operational Emissions	0.55	0.16	0.36	0.09
BAAQMD Threshold (tons/year)	*10*	*10*	*15*	*10*
Exceed Threshold?	**No**	**No**	**No**	**No**
2024 Project Operational Emissions (pounds/ day)	2.99	0.88	2.00	0.52
BAAQMD Threshold (pounds/ day)	*54*	*54*	*82*	*54*
Exceed Threshold?	**No**	**No**	**No**	**No**
Note: Analysis assumes that there are 365 operational days per year				

Operational criteria pollutant emissions associated with the proposed project would not result in emissions above established thresholds. The proposed project would not conflict with or obstruct implementation of the Bay Area 2017 CAP and impacts would be less than significant.

Impact AIR-2: The project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard. **(Less than Significant Impact)**

As discussed above under Impact AIR-1, construction and operational period criteria pollutant emissions associated with the project would not exceed the BAAQMD significance thresholds. Since the project would have a less than significant criteria pollutant impact, the project would not result in a cumulatively considerable net increase of any criteria pollutant for which the region is in non-attainment.

Impact AIR-3: The project would not expose sensitive receptors to substantial pollutant concentrations. **(Less than Significant Impact with Mitigation Incorporated)**

Fugitive Dust

Construction activities associated with the project, 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 Air Quality Guidelines consider these impacts to be less than significant if best management practices are implemented to

reduce the emissions. As described below, the project includes Standard Permit Conditions to reduce this impact to a less than significant level.

Standard Permit Conditions: The following measures shall be implemented during all phases of construction to control dust and exhaust at the project site:

- Water active construction areas at least twice daily or as often as needed to control dust emissions.
- Cover trucks hauling soil, sand, and other loose material and/ or ensure that all trucks hauling such materials maintain at least two feet of freeboard.
- Remove visible mud or dirt track-out onto adjacent public roads using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- Enclose, cover, water twice daily or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.).
- Pave new or improved roadways, driveways, and sidewalks as soon as possible.
- Lay building pads as soon as possible after grading unless seeding or soil binders are used.
- Replant vegetation in disturbed areas as quickly as possible.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- Minimize idling times either by shutting off equipment when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Provide clear signage for construction workers at all access points.
- Maintain and properly tune construction equipment in accordance with manufacturer's specifications. Check all equipment by a certified mechanic and record a determination of 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.

With implementation of the above Standard Permit Conditions, the project would have a less than significant impact with regard to fugitive dust emissions and, therefore, would not expose sensitive receptors to substantial pollutant concentrations.

Toxic Air Contaminants

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a known TAC. Construction exhaust emissions pose health risks for sensitive receptors such as surrounding residents. The primary community risk impact issues associated with construction emissions are cancer risk and exposure to DPM and $PM_{2.5}$. The health risk assessment of the project (refer to Appendix B) evaluated potential health effects of sensitive receptors at nearby residences and identified a maximally exposed individual (MEI) for construction emissions of DPM and $PM_{2.5}$. The MEI is located on the first floor of the nearest proposed residential building associated with the pending 557 East Bayshore Road project. As noted above, because the pending 557 East Bayshore project is located closer to the project site than the existing residences along Bair Island Road and

McNeill Drive, and in the same wind direction, the level of pollutants and associated health risks and hazards affecting the existing residences would be less than or equal to what is forecast for the 557 East Bayshore project. The results of the assessment for project construction are summarized in Table 3.3-, below.

Table 3.3-7: Construction Risk Impacts at the Off-Site Maximally Exposed Individual			
TAC Source	**Cancer Risk (per million)**	**Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)**	**Hazard Index**
Project Construction			
Unmitigated	22.50	0.30	0.01
Mitigated	4.86	0.11	<0.01
BAAQMD Single Source Thresholds	*>10*	*>0.3*	*>1.0*
Exceeds Threshold?			
Unmitigated	**Yes**	**Yes**	**No**
Mitigated	**No**	**No**	**No**

As shown in Table 3.3-, the construction health risk impacts associated with the proposed project would exceed the BAAQMD single-source thresholds for cancer risk and $PM_{2.5}$ concentrations without implementation of mitigation, thereby causing a significant impact to nearby sensitive receptors.

Impact AIR-1: Construction activities associated with the proposed project would expose sensitive receptors near the project site to Toxic Air Contaminant emissions in excess of the BAAQMD cancer risk threshold of >10 cases per million and annual PM2.5 concentration threshold of 0.3 $\mu g/m^3$.

Mitigation Measure:

MM AIR-1.1: Prior to issuance of any demolition, grading, and/or building permits (whichever occurs earliest), the project applicant shall submit a construction operations plan to the Director of Community Development & Transportation or the Director's designee that includes specifications of the equipment to be used during construction. The plan shall be accompanied by a letter signed by an air quality specialist, verifying that the equipment included in the plan meets the standards set forth below.

- All construction equipment larger than 25 horsepower used at the site for more than two continuous days or 20 hours total shall, at a minimum, meet U.S. EPA Tier 4 final emission standards for particulate matter (PM_{10} and $PM_{2.5}$).
    - If Tier 4 equipment is not available, all construction equipment larger than 25 horsepower used at the site for more than two continuous days or 20 hours total shall meet U.S. Environmental Protection Agency (EPA) emission standards for Tier 3 engines and include particulate matter emissions control equivalent to CARB Level 3

verifiable diesel emission control devices that altogether achieve an 70 percent or greater reduction in particulate matter exhaust in comparison to uncontrolled equipment.

- Use of alternatively fueled or electric equipment.

Alternatively, the project applicant could develop a plan that reduces on- and near-site construction emissions by a minimum 60 percent or greater. The construction operations plan shall be reviewed and approved by the Director of Community Development & Transportation or the Director's designee prior to the issuance of any demolition, grading, or building permits (whichever occurs earliest).

With implementation of Mitigation Measure MM AIR-1.1, the cancer risk would be reduced to 4.86 cases per one million, which is below the BAAQMD single-source threshold of 10.0 per million, and the and annual PM2.5 concentration would be reduced to 0.11 $\mu g/m^3$, which is below the single-source threshold of 0.3 $\mu g/m^3$. Therefore, the project would have a less than significant off-site community health risk impact from construction.

Operational TAC Impacts on Off-Site Sensitive Receptors

Operational emissions from the proposed project would include emissions from vehicular traffic. Traffic from residential projects are not typically considered sources of TAC or $PM_{2.5}$ emissions that could adversely affect sensitive receptors. The project would generate traffic associated with residential and commercial uses that would be distributed over various roadways. These are anticipated to consist of mostly passenger vehicles with a low percentage of diesel trucks that would emit TACs. BAAQMD considers projects generating 10,000 total vehicles per day to be a low-impact source of TACs. The proposed project would generate 529 daily trips (resulting in a net addition of 480 trips when considering the 49 trips associated with the existing use on the site), which is less than 10,000 total vehicle trip per day. Additionally, there would be no stationary sources of TACs, such as emergency backup generators. Therefore, the project would not expose off-site sensitive receptors to substantial operational TAC concentrations or emissions.

Criteria Pollutant Emissions

In a 2018 decision (Sierra Club v. County of Fresno), the State Supreme Court determined that 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 nonattainment 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 effects.

The proposed project would result in a less than significant operational and construction criteria pollutant impact as discussed previously. Therefore, the project would not expose sensitive receptors to substantial pollutant concentrations.

Impact AIR-4:	The project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. **(Less than Significant Impact)**

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.

The project would redevelop an existing commercial/industrial facility with a residential development. The project 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 would not affect people off-site. Residential developments do not typically generate objectionable odors. The project would, therefore, not create objectionable odors that would affect the existing residents near the site.

3.3.2.3 *Cumulative Impacts*

Impact AIR-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant air quality impact. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

By its very nature, air pollution is largely a cumulative impact. The geographic area for cumulative air quality impacts is the San Francisco Bay Area Air Basin. Past, present, and future development projects (including the cumulative projects) contribute to the region's adverse air quality impacts. No single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts.

Cumulative Construction Air Quality

Cumulative construction activities associated with the proposed project and the cumulative sources shown in Table 3.3-8 could temporarily affect local air quality. The project and cumulative community risk impacts are shown below.

It should be noted that the 557 East Bayshore project, located directly adjacent to the project site's eastern property line, is still under environmental review. Assuming the 557 East Bayshore project and the proposed project receive their respective approvals, a scenario could occur where construction of the two projects occurs simultaneously. However, the nearest sensitive receptors to the project site (other than the future residences at the 557 East Bayshore project) are the existing residences located along Bair Island Road and McNeill Drive, which are over 1,000 feet from the project site. For analysis of cumulative community risks, BAAQMD recommends consideration of all sources within 1,000 feet of a sensitive receptor. Since the project site is over 1,000 feet from the

residences along Bair Island Road and McNeill Drive, construction emissions associated with the project would not be considered a cumulative source of health risks at these residences. As a result, the MEI for cumulative community risk impacts associated with the project is the same as the MEI for the project-specific community risk impacts (i.e., future residences at the 557 East Bayshore project).

Table 3.3-8: Cumulative Community Risk Impacts from Combined TAC Sources			
Source	**Maximum Cancer Risk (per million)**	**$PM_{2.5}$ Concentration ($\mu g/m^3$)**	**Hazard Index**
Project Impacts			
Project Construction			
Unmitigated	22.50	0.30	0.01
Mitigated	4.86	0.11	<0.01
BAAQMD Single-Source Threshold	*>10.0*	*>0.3*	*>1.0*
Exceed Threshold Unmitigated?	**Yes**	**Yes**	**No**
Cumulative Sources			
Highway 101	8.58	0.24	<0.01
Highway 101 Northbound Offramp (Exit 409)	0.28	0.01	<0.01
Whipple Avenue	0.26	0.01	<0.01
Putnam Lexus (Facility ID #200079, Generator), MEI at 750 feet.	<0.01	<0.01	<0.01
Project Impacts + Cumulative Sources			
Unmitigated	<31.63	<0.57	<0.05
Mitigated	<13.99	<0.38	<0.05
BAAQMD Cumulative Source Threshold	*>100*	*>0.8*	*>10.0*
Exceed threshold?	**No**	**No**	**No**

As shown in Table 3.3-, with implementation of MM AIR-1.1, the project combined with non-project cumulative sources would not exceed the BAAQMD cumulative thresholds for cancer risk, $PM_{2.5,}$ or hazard index.

Cumulative Operational Air Quality

In developing thresholds of significance for air pollution, 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 air quality conditions. As described above, the project would not exceed the BAAQMD thresholds for operational criterial pollutant emissions; therefore, it would not make a cumulatively considerable contribution to regional air quality impacts. **(Less than Significant Cumulative Impact)**

3.4 BIOLOGICAL RESOURCES

The following discussion is based in part on a biological analysis prepared for the project by H.T. Harvey and Associates in August 2022. A copy of the report is attached to this EIR as Appendix C.

3.4.1 Environmental Setting

3.4.1.1 *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. The taking and killing of birds resulting from an activity is not prohibited by the MBTA when the underlying purpose of that activity is not to take birds.[20] Nesting birds are considered special-status species and are protected by the USFWS. 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

[20] United States Department of the Interior. "Memorandum M-37050. The Migratory Bird Treaty Act Does Not Prohibit Incidental Take." Accessed February 28, 2022. https://www.doi.gov/sites/doi.gov/files/uploads/m-37050.pdf.

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.

Clean Water Act

The Clean Water Act (CWA) functions to maintain and restore the physical, chemical, and biological integrity of Waters of the U.S., which include, but are not limited to, tributaries to traditionally navigable waters currently or historically used for interstate or foreign commerce, and adjacent wetlands. Historically, in non-tidal waters, U.S. Army Corp of Engineers (USACE) jurisdiction extends to the ordinary high water (OHW) mark, which is defined in Title 33, Code of Federal Regulations (CFR), Part 328.3. If there are wetlands adjacent to channelized features, the limits of USACE jurisdiction extend beyond the OHW mark to the outer edges of the wetlands. Wetlands that are not adjacent to tributaries to Waters of the U.S. are termed "isolated wetlands" and, depending on the circumstances, typically are not subject to USACE jurisdiction. In tidal waters, USACE jurisdiction extends to the landward extent of vegetation associated with salt or brackish water or the high tide line. The high tide line is defined in 33 CFR Part 328.3 as "the line of intersection of the land with the water's surface at the maximum height reached by a rising tide."

On June 23, 2020, the Navigable Waters Protection Rule went into effect. This rule clarifies that federal waters do not include ephemeral streams or features adjacent. Ephemeral streams have no connection to groundwater and only convey flows during and shortly after perception events. They do not include intermittent streams with a seasonal connection to groundwater or seasonal flows that persist for several days or more following rain events or that persist between winter storms. However, consistent with the U.S. District Court for the District of Arizona's August 30, 2021 order vacating and remanding the Navigable Waters Protection Rule, the USACE has halted implementation of the Navigable Waters Protection Rule and is currently interpreting the presence and limits of "waters of the United States" consistent with the pre-2015 regulatory regime, which recognized some ephemeral streams as federal waters, until further notice.

Construction activities within jurisdictional waters are regulated by the USACE. The placement of fill into such waters must comply with permit requirements of the USACE. No USACE permit will be effective in the absence of Section 401 Water Quality Certification.

Sensitive Natural Communities, Vegetation Alliances, and Habitats

Natural communities have been considered part of the Natural Heritage Conservation triad, along with plants and animals of conservation significance, since the state inception of the Natural Heritage Program in 1979. CDFW determines the level of rarity and imperilment of vegetation types and tracks sensitive communities in its Rarefind database. Global rankings (G) of natural communities reflect the overall condition (rarity and endangerment) of a habitat throughout its range, whereas state

(S) rankings reflect the condition of a habitat within California. Natural communities are defined using NatureServe's standard heritage program methodology as follows:

G1/S1:	Critically imperiled
G2/S2:	Imperiled
G3/S3:	Vulnerable
G4/S4:	Apparently secure
G5/S4:	Secure

In addition to tracking sensitive natural communities, CDFW also ranks vegetation alliances, defined by repeating patterns of plants across a landscape that reflect climate, soil, water, disturbance, and other environmental factors. If an alliance is marked G1 – G3, all of the vegetation associations within it will also be of high priority. CDFW provides the Vegetation Classification and Mapping Program's currently accepted list of vegetation alliances and associates.

Impacts on CDFW sensitive natural communities, vegetation alliances/associations, or any such community identified in local or regional plans, policies, and regulations, must be considered and evaluated under CEQA. Furthermore, aquatic, wetland and riparian habitats are also protected under applicable federal, state, or local regulations, and are generally subject to regulations, protection, or consideration by the USACE, RWQCB, CDFW, and/or the USFWS.

Regional and Local

Redwood City General Plan

The General Plan includes policies for the purpose of avoiding or mitigating impacts from planned development in the City. The policies below are specific to biological resources and are applicable to the proposed project.

Policy	Description
Natural Resources	
NR-9.1	Preserve, maintain, and expand the number of trees in Redwood City's urban forest, on both public and private property.
NR-9.2	Require new trees to be planted and/or plant new trees in sufficient number, as identified on a site by site basis, on sites designated as sensitive receptors (i.e. schools or hospitals) that are in close proximity to industry, heavily traveled freeways and roads, and other similar pollution sources in order to mitigate air pollution.
NR-9.3	Select appropriate trees for Redwood City, focusing especially on native and landmark tree types.

Redwood City Tree Ordinance

Trees in Redwood City are regulated by Chapter 35 of the City's Municipal Code. Two tree ordinances protect and preserve Redwood City's urban forest: 1) the Street Tree Ordinance, which protects all street trees growing on public property adjacent to roadways throughout Redwood City, and 2) the Tree Preservation Ordinance, which protects all permit trees growing on private property. Street trees have no size requirements. Permit trees are defined as "any wood plant characterized by having a single or multiple trunk size of 38-inch circumference (12-inch diameter) or more, measured at any point between 6 inches and 36 inches above ground level". A Tree Permit is required for the removal or pruning of all street trees and permit trees.

3.4.1.2 *Existing Conditions*

Biotic Habitats

As shown in Figure 3.4-1, and described in detail below, reconnaissance-level surveys identified three biotic habitat types/land uses on the project site: developed/landscaped (2.42 acres), muted tidal marsh[21] (0.04 acre), and ruderal ditch bank (0.03 acre).

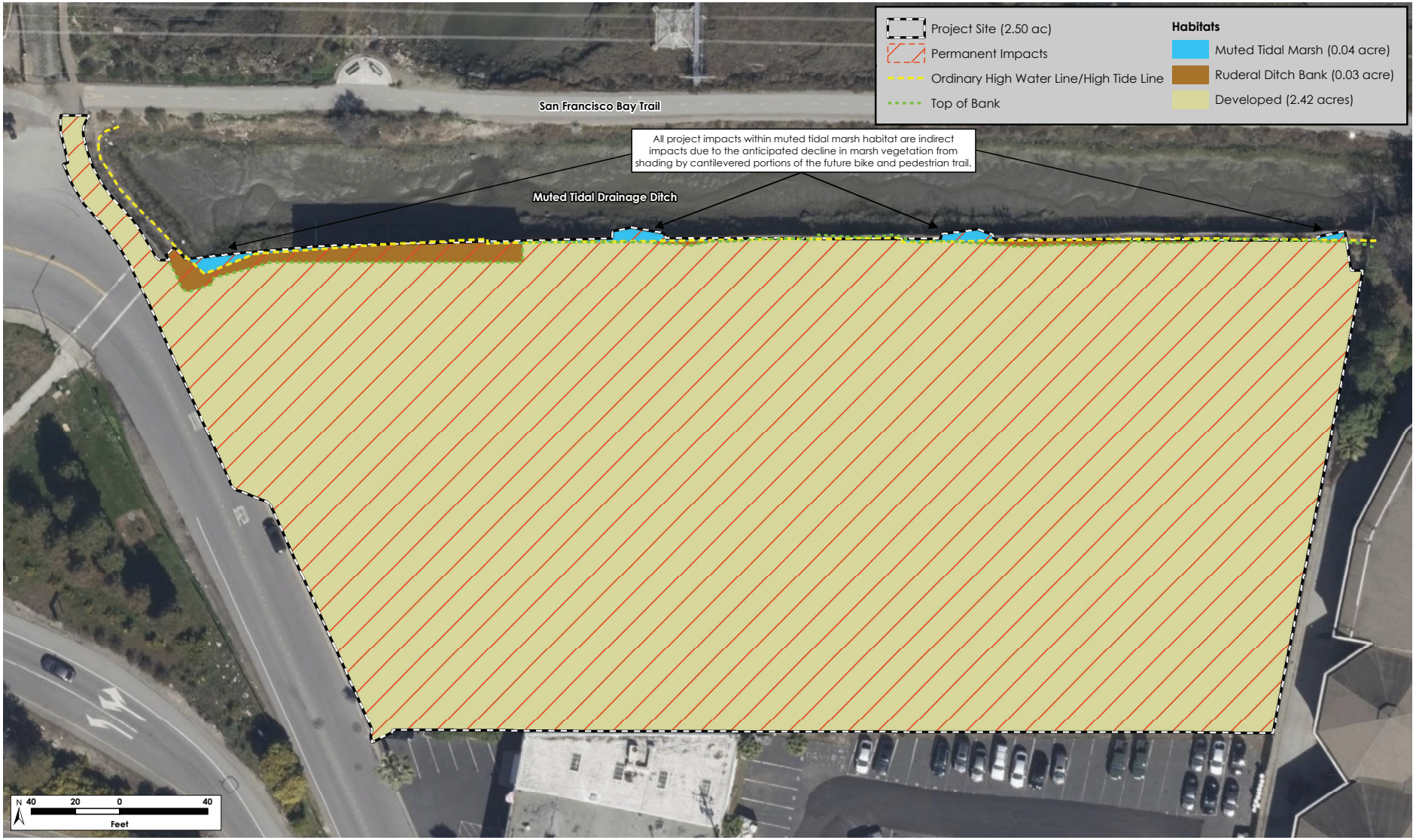
Developed/Landscaped

Vegetation. Developed/landscaped areas occupy the majority of the project site, and consist of four single-story warehouses, an associated paved parking area, a staging area, and a narrow, landscaped area. The storage yard consists of hardpacked gravel, concrete, asphalt, and unvegetated soil. One warehouse is located on the northwestern portion of the project site, bordered by East Bayshore Road. The other three warehouses are positioned in the southern portion of the project site, along the fence line. Steel road plates are laid throughout the storage yard in order to withstand the weight of equipment.

Landscaping is planted along a man-made berm that was constructed along the northern boundary of the project site in order to prevent water from flooding the storage yard and adjacent warehouses. Ornamental tree species were planted along the top of the berm, including Chinese hackberry, Bailey acacia, pine, and Chinese Juniper. The understory is primarily unvegetated but includes some alkali heath (*Frankenia salina*) and salt grass (*Distichlis spicata*), which likely escaped from the nearby muted tidal marsh.

The vacant lot in the northeast corner of the project site acts as a staging area and consists primarily of unvegetated, disturbed soil. During the survey, the soil in this area experienced a fair amount of ponding and saturation. The ponding was most pronounced on the western edge of the vacant lot and was likely the result of overland runoff from large storm events. There were also saturated areas along the northern boundary of the lot. These wet areas included a low overall cover of vegetation and included species such as alkali heath, common pickleweed (Salicornia pacifica), salt grass, and slender ice plant (*Mesembryanthemum nodiflorum*). In the drier areas to the south, upland species such as cheeseweed (*Malva sp*.), wild oat (*Avena fatua*), ripgut brome (*Bromus diandrus*), and Canada horseweed (*Erigeron canadensis*) were observed. Overall vegetative cover was less than

[21] A muted tidal marsh is a marsh where culverts or other obstructions reduce the range of tides but still allow frequent inundation.



Source: H.T. Harvey & Associates, August 2022.

BIOTIC HABITAT TYPES ON THE PROJECT SITE

FIGURE 3.4-1

10% throughout the vacant lot, both in the wet and dry areas. The vacant lot contained features installed to enhance drainage in this area.

Wildlife. Due to the scarcity of vegetation, the project site provides very low quality habitat for wildlife. The wildlife most often associated with developed areas such as the project site are tolerant of human disturbances, and include introduced species such as the European starling (*Sturnus vulgaris*), rock pigeon (*Columba livia*), house sparrow (*Passer domesticus*), house mouse (*Mus musculus*), Norway rat (*Rattus norvegicus*), and Virginia opossum (*Didelphis virginiana*) as well as several common, urban adapted native species such as the American crow (*Corvus brachyrhynchos*), house finch (*Haemorhous mexicanus*), Brewer's blackbird (*Euphagus cyanocephalus*) and raccoon (*Pyrocon lotor*), which was observed to use the site. Common native resident birds such as the mourning dove (*Zenaida macroura*), Anna's hummingbird (*Calypte anna*), bushtit (*Psaltriparus minimus*), Brewer's blackbird, and house finch, will nest within vegetation or on buildings on or adjacent to the project site. Wildlife associated with higher quality, nearby habitats, such as the Bair Island complex to the north, may occasionally disperse onto or occupy the site. For example, a grey fox (*Urocyon cinereoargenteus*), was observed on the site during the reconnaissance survey. While the buildings on the site provide potential roosting habitat for common species of bats, such as the Mexican free-tailed bat (*Tadarida brasiliensis*), no signs of roosting bats (e.g. guano and urine staining) were observed on either the exterior or interior of the building to suggest a large colony of bats is currently using the buildings.

Ruderal Ditch Bank

Vegetation. Ruderal ditch bank habitat within the project site is located below the top of the bank, along the northern property boundary, and above the extent of muted tidal marsh habitat within the drainage ditch. Vegetation within this habitat is fairly bare, containing the occasional ruderal grassland species, such as wild oat and purple sand spurry (*Spergularia rubra*), as well as the occasional Pacific pickleweed recruit. The ruderal ditch bank is lined with gravel and rocks.

Wildlife. The area of ruderal ditch bank grassland habitat on the project site provides limited habitat for wildlife species due to its narrow extent, lack of connectivity with more extensive grassland habitats in the region, and overall lack of vegetation. Wildlife species that make use of this habitat are similar to those that occur within the developed/landscaped and ruderal grassland habitats on the project site, described above. In addition, some wildlife species associated with the marsh habitat along the muted tidal drainage ditch and the unnamed tidal slough to the north are expected to forage opportunistically within this habitat. These include resident Alameda song sparrows (*Melospiza melodia pusillula*), Bryant's savannah sparrows (*Passerculus sandwichensis alaudinus*), and wintering Lincoln's sparrows (*Melospiza lincolnii*).

Muted Tidal Marsh

Vegetation. Muted tidal marsh vegetation is located within areas mapped as jurisdictional wetlands in the project's February 1, 2021 USACE verified delineation along the banks of the ditch at or above the permanently inundated areas. Only a small portion of muted tidal marsh habitat occurs within the project site. The remainder of the muted tidal channel occurs parallel to the project site along the northern boundary. The muted tidal marsh vegetation consists of dense, narrow stands of native, salt-tolerant hydrophytes, and is influenced by the muted ebb and flow of tidal waters through

the pipe connection between the drainage ditch and the unnamed tidal slough to the north. The muted tidal ditch receives limited freshwater input from landscape and stormwater runoff from the project site and adjacent developed properties. The pipe connecting the ditch with the slough is located immediately opposite the project site along the northern edge of the ditch. The water level within the ditch fluctuates daily, though due to the narrow nature of the pipe, tidal action within the ditch is considered muted.

Wildlife. The limited extent of the muted tidal marsh habitat on the project site and lack of tall, dense marsh vegetation and grasses (e.g., cordgrass [*Spartina foliosa*]) limits the value of this habitat to marsh-associated wildlife species. However, adjacent from the site and the San Francisco Bay Trail are extensive areas of marsh habitat that support robust populations of marsh-associated wildlife species, and some of these species, such as the marsh wren and Alameda song sparrow, are expected to inhabit the smaller area of muted tidal marsh habitat along the drainage ditch or make use of this habitat opportunistically. Wildlife species that are associated with dense, tall marsh vegetation and grasses, such as the San Francisco common yellowthroat (*Geothlypis trichas sinuosa*), red-winged blackbird (*Agelais phoeniceus*), California Ridgeway's rail (*Rallus obsoletus obsoletus*), Virginia rail (*Rallus limicola*), and sora (*Porzana carolina*) are absent from the drainage ditch due to the relatively sparse, short structure of the vegetation present. The band of pickleweed vegetation along either side of the drainage ditch provides ostensibly suitable habitat for the salt marsh harvest mouse and salt marsh wandering shrew (*Sorex vagrans halicoetes*), and these species may be present within this vegetation; however, due to the narrow nature of this marsh vegetation and separation from higher-quality habitat by the Bay Trail, habitat quality within the muted tidal marsh for the salt marsh harvest mouse and salt marsh wandering shrew is low.

Dabbling ducks such as the mallard (*Anas platyrhynchos*) may forage in the aquatic habitat along the muted tidal drainage ditch during high tide and nest in adjacent marsh and grassland areas. However, the aquatic habitat along the ditch is too shallow to provide forage habitat for diving ducks, such as the ruddy duck (*Oxyura jamaicensis*), that are found in the unnamed tidal slough to the north. Wading birds such as the snowy egret (*Egretta thula*), killdeer (*Charadrius vociferous*), and spotted sandpiper (*Actitis macularius*) will forage along this ditch, especially during low tide when the marsh habitat is exposed.

Adjacent Habitat Areas

Ruderal Ditch Bank

Vegetation. Ruderal ditch bank habitat is located below the top of the bank and above the mapped extent of muted tidal marsh habitat within the drainage ditch to the north of the project site. In contrast to the relatively bare section of ruderal ditch bank located on the project site, sparse vegetation is present within this habitat in other areas along the ditch. Plant species present within this habitat include a number of the same species observed within the muted tidal marsh habitat, such as alkali heath, salt grass, pickleweed, and fat hen (*Atriplex prostrata*), and nonnative ice plant sea fig (*Carpobrotus chilensis*). In addition to these species, scattered individuals of some upland species occur, including wild oat, ripgut brome, black mustard (*Brassica nigra*), and Italian thistle (*Carduus pycnocephalus*). In addition to these grassland species, several large trees including coast live oak, eucalyptus, and toyon (*Heteromales arbutifolia*) are present within this habitat.

Wildlife. The area of ruderal ditch bank grassland habitat north of the project site provides limited habitat for wildlife species due to its narrow extent and lack of connectivity with more extensive grassland habitats in the region. Wildlife species that make use of this habitat are similar to those that occur within the developed/landscaped and ruderal grassland habitats on the project site, described above. In addition, wildlife species associated with the marsh habitat along the muted tidal drainage ditch and the unnamed tidal slough to the north are expected to forage opportunistically within this habitat. These include resident Alameda song sparrows, Bryant's savannah sparrows, marsh wrens, and wintering Lincoln's sparrows.

Bair Island Complex/Don Edwards San Francisco Bay National Wildlife Refuge

The Bair Island complex is an important tidal marsh island complex located directly to the north of the project site that is owned and managed by multiple entities including the CDFW (Bair Island Ecological Reserve) and USFWS (Don Edwards San Francisco Bay National Wildlife Refuge). The Bair Island complex is a former salt marsh that has undergone considerable natural and anthropogenic changes and is currently the focus of multiple large-scale restoration efforts. Bair Island complex is divided into three distinct areas separated by slough channels: Inner, Middle, and Outer Bair Islands. Historically, Bair Island was part of a large complex of tidal marshes and mudflats within the drainage of Redwood Creek and Steinberger Slough. It was later diked and used for cattle grazing, then as salt evaporation ponds. The extent of anthropogenic changes at Bair Island has resulted in the replacement of historical tidal malt marsh and the fragmentation of the remaining habitat. Of the three islands, Inner Bair Island is located closest to the project site and is separated from the site by an unnamed slough channel that branches off of Smith Slough, approximately 1,500 feet to the northeast of the project site. The project site is separated from Inner Bair Island by this 150 foot wide slough channel, as well as by the 12 foot wide San Francisco Bay Trail.

Habitats at Bair Island include tidal salt marsh, muted tidal salt marsh, diked salt marsh, seasonally ponded wetlands, open water, and ruderal grassland. Inner Bair Island, closest to the project site, supports large areas of ruderal grassland, seasonally ponded wetlands, and tidal salt marsh. Sensitive wildlife species present within these areas include the California Ridgeway's rail, salt marsh harvest mouse, northern harrier (*Circus hudsonius*), burrowing owl, San Francisco common yellowthroat, Alameda song sparrow, and salt marsh wandering shrew.

Special Status Plant Species

The California Native Plant Society (CNPS) and California Natural Diversity Database (CNDDB) identified 66 special status plant species as potentially occurring in at least one of the nine USGS quadrangles containing or surrounding the project site. Of those 66 potentially occurring special status plant species, all were determined to be absent from the project site for at least one of the following reasons: (1) lack of suitable habitat; (2) absence of specific microhabitat or edaphic[22] requirements, such as serpentine soils; (3) the elevation range of the species is outside of the range on the project site; (4) the site is too regularly disturbed and compacted to be expected to support the species; and/or (5) the species is considered extirpated from the project vicinity. A number of special status plant species that occur in muted tidal salt marshes in the region, such as Pt. Reyes salty bird's beak (*Chloropyron maritimum ssp. palustre*), California seablite (*Suaeda californica*), alkali milk

[22] Edaphic is defined as "of, produced by, or influenced by soil."

vetch (*Astragalus tener var. tener*), and saline clover (*Trifolium hydrophilum*), are known to occur at Bair Island and in salt ponds near the project site. However, the muted tidal marsh habitat within the project site is limited in extent and degraded due to anthropogenic influence and does not provide suitable habitat for these species. Additionally, the narrow muted tidal connection between the drainage ditch and the adjacent unnamed tidal slough located below the permanently inundated portions of the ditch is a partial barrier to water-based seed dispersal for rare tidal marsh species. No rare, tidal, marsh-adapted plant species are expected to occur on the site due to the isolation of the site from potential source populations and the heavily and regularly disturbed and devegetated nature of the site.

Although Congdon's tarplant (*Centromadia parryi ssp. congdonii*) can occur in disturbed habitats, and has been documented by the CNDDB in the project vicinity, the project site is too heavily and regularly disturbed for this species to occur there. Therefore, this species is also considered absent from the project site. In summary, no special status plants are expected to occur on the project site.

Special Status Animal Species

A majority of special status animal species known to occur or with the potential to occur in the surrounding region are not expected to occur on the project site because it lacks suitable habitat, is outside the known range of the species, and/or is isolated from the nearest know extant populations.[23]

The following special status species occur in less urbanized settings in the South Bay, or in specialized habitats in the South Bay, but are absent from the project site due to a lack of suitable habitat and/or isolation of the project site from populations by urbanization: the California black rail (*Laterallus jamaicensis coturniculus*), California red-legged frog (*Rana draytonii*), San Francisco garter snake (*Thamnophis sirtalis tetrataenia*), western pond turtle (*Actinemys marmorata*), burrowing owl (*Athene cunicularia*), short-eared owl (*Asio flammeus*), loggerhead shrike (*Lanius ludovicianus*), Mountain Lion (*Puma concolor*), Townsend's big-eared bat (*Corynorhinus townsendii*), and golden eagle (*Aquila chrysaetos*).

No suitable aquatic habitat to support special status fish and marine mammal species is present on the project site, as these species are not expected to traverse the narrow pipe connecting the muted tidal ditch to the unnamed tidal slough. However, the unnamed tidal slough 60 feet to the north provides suitable foraging habitat for the green sturgeon, Central California Coast steelhead, longfin smelt, Central Valley fall-run Chinook salmon, Pacific lamprey (*Entosphenus tridentatus*), and Pacific harbor seal. Although these special status species would not be directly affected by the project, there is potential for project activities to result in indirect effects on these species due to their location downstream from the project site.

The California Ridgeway's rail, western snowy plover (*Charadrius nivosus nivosus*), California least tern (*Sternula antillarum browni*), black skimmer (*Rynchops niger*), northern harrier, and California brown pelican (*Pelecanus occidentalis californicus*) are special status species associated with tidal marsh, salt panne[24], or open water habitats of San Francisco Bay that are known to occur, or

[23] The legal status and likelihood of occurrence on the project site of special status animal species are presented in Table One of Appendix C.
[24] A salt panne is defined as "water detaining depressions located within salt and brackish marshes.

historically occurred, at Bair Island. However, these species are absent from the project site and adjacent areas due to the relatively limited extent of the habitat present and/or because the habitat on and adjacent to the site is not suitable to support the species.

A number of special status bird species can occasionally occur on the project site as nonbreeding foragers (i.e., they do not nest on the project site). These include the tricolored blackbird, Vaux's swift (*Chaetura vauxi*), San Francisco common yellowthroat, Bryant's savannah sparrow, and peregrine falcon (*Falco peregrinus anatum*). The pallid bat (*Antrozous pallidus*), a California species of special concern, may also forage aerially over habitats on the project site. These species are not expected to nest, roost, or breed on or immediately adjacent to the project site.

The monarch butterfly (*Danaus plexippus*), a federal candidate species, may also occur on the site as an occasional migrant, though no suitable host plants or nectar sources are present on the site due to its disturbed condition. The salt marsh harvest mouse, Alameda song sparrow, salt marsh wandering shrew, and white-tailed kite (*Elanus leucurus*) could potentially breed or occur in or immediately adjacent to the project site.

Sensitive Natural Communities, Vegetation Alliances, and Habitats

As defined in Section 3.4.1.1, CDFW determines the level of rarity and imperilment of vegetation types and tracks sensitive communities in its Rarefind database. Natural communities are defined using NatureServe's standard heritage program methodology and global rankings (G) of natural communities reflect the overall condition (rarity and endangerment) of a habitat throughout its range, whereas state (S) rankings reflect the condition of a habitat within California. CDFW also ranks vegetation alliances, defined by repeating patterns of plants across a landscape that reflect climate, soil, water, disturbance, and other environmental factors. If an alliance is marked G1 – G3, all of the vegetation associations within it will also be of high priority. Impacts on CDFW sensitive natural communities, vegetation alliances/associations, or any such community identified in local or regional plans, policies, and regulations, must be considered and evaluated under CEQA.

Sensitive Natural Communities

A query of sensitive habitats in the CNDDB identified three sensitive natural communities as occurring within the nine 7.5-minute USGS quadrangles containing or surrounding the project site: (1) northern coastal salt marsh (Rank G3/S3.2), (2) serpentine bunchgrass (Rank G2/S2.2), and (3) valley oak woodland (Rank G3/S2.1). Northern coastal salt marsh is characterized as occurring along sheltered inland margins of bays, often co-dominated by pickleweed (*Salicornia spp*.), cordgrass, and sometimes saltgrass. Because the muted tidal marsh habitat on the project site is dominated by pickleweed, this habitat would be considered northern coastal salt marsh. Serpentine bunchgrass occurs only on serpentine soils, which do not occur on the project site. Valley oaks (*Quercus lobata*) are not present on the project site.

Sensitive Vegetation Alliances

The muted tidal marsh habitat present on the project site is dominated by pickleweed and would therefore be characterized as Sarcocornia pacifica (*Salicornia depressa*) Herbaceous Alliance. This

alliance is ranked as G4/S3, meaning that it is globally secure, but considered vulnerable on a state-wide level, and this alliance is included on CDFW's list of sensitive natural communities.

CDFW Riparian Habitat

Because the drainage ditch on the project site is a muted tidal, backwater channel and does not receive hydrology from a freshwater stream or creek, it would not be expected to fall under the jurisdiction of CDFW as a sensitive riparian habitat.

Sensitive Habitats (Waters of the United States/State)

In 2020, Huffman-Broadway Group, Inc. performed a wetland delineation of the project site. This report determined that the wetland indicators described above were not based on current hydrology, but rather on salinity of the soils, as well as historical conditions of the site prior to being diked off from the muted tidal drainage.

On February 1, 2021, the USACE verified a delineation of the project site that claimed the muted tidal ditch along the northern boundary of the project site as "waters of the United States". This was based on the presence of its hydrologic connection to the unnamed tidal slough located north of the Bay Trail levee along the southern boundary of Inner Bair Island and connecting downstream to Smith Slough to the northeast, as well as the presence of estuarine (muted tidal) wetlands within the upper slopes if the ditch. No direct project impacts (e.g., grading, fill, outfall construction, or trail construction) would occur within areas that are mapped as waters of the United States in the project's verified delineation. While some areas of muted tidal marsh habitat fall within the project development boundary, all of these areas are located beneath the cantilevered bike and pedestrian trail, and will not be directly impacted (either permanently or temporarily) by the project.

The remainder of the project site was classified as uplands by the USACE. During the October 2021 site visit by H.T. Harvey & Associates, large areas of ponding and soil saturation were observed in the vacant lot in the northeast portion of the project site, likely the result of overland runoff from the large mid-October storm events. There were also differences in vegetation observed in the wetted portions of the project site and drier areas, which featured obligate hydrophytic vegetation[25] such as pickleweed (Salicornia sp.) germinating in the wetter areas, and upland vegetation in the drier portions of the lot. In November 2021, after an additional 13 days for the site to dry down, ponding had reduced but was still present, several previously ponded areas were still saturated, and other previously ponded areas that were no longer saturated to the soil surface exhibited similar indicators of wetland hydrology and the development of hydrophytic vegetation communities. The wetted areas observed during the 2021 surveys were determined to be non-jurisdictional and any impacts in this portion of the project site would not require a Section 404 permit.

The RWQCB may consider the aquatic portions of the muted tidal drainage ditch, as well as muted tidal wetlands associated with this ditch, to be waters of the state. As noted above, no direct permanent or temporary impacts to muted tidal marsh habitat from filling, grading, or other activities will occur. While some areas of muted tidal marsh habitat fall within the project development boundary, all of these areas are located beneath the cantilevered bike and pedestrian trail, and would not be directly impacted (either permanently or temporarily) by the project. In addition, the RWQCB

[25] Obligate hydrophytic vegetation is defined as vegetation restricted to growing partially or totally submerged in water.

could potentially claim jurisdiction over the ruderal ditch bank up to the hinge point at top of bank as important buffer habitat to the wetlands and ditch. RWQCB verification would be necessary to definitively determine the limits of waters of the state on the site. If the RWQCB claims jurisdiction over these areas, impacts to jurisdictional areas (potentially including the ruderal ditch bank below the top of bank) would trigger the need for Waste Discharge Requirements for impacts on waters of the state.

3.4.2 Impact Discussion

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

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?

3.4.2.1 *Project Impacts*

Impact BIO-1:	The project would not 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. **(Less than Significant Impact with Mitigation Incorporated)**

Impacts on Upland Habitat and Associated Common Plant and Wildlife Species

The project would permanently convert 0.03 acre of ruderal ditch bank habitat to developed areas and redevelop 2.42 acres of developed habitat on the site. These habitats are abundant and widespread regionally and are not particularly sensitive or valuable (from the perspective of providing important plant or wildlife habitat). Therefore, impacts on these habitats would be considered less than significant.

As described in Section 3.4.2, upland habitats on the project site currently support a number of common wildlife species, although due to its largely developed nature, the site provides relatively low quality habitat for most species and therefore supports relatively small numbers of individuals of any one species. A single grey fox was encountered on the project site during reconnaissance surveys completed for the site in October 2021. Evidence of use by common mammals, such as raccoons, was observed during the surveys. Additionally, common and special status bat species are known to roost in large, open buildings such as the warehouse-style buildings on the site. However, all buildings on the site were thoroughly searched for evidence of active bat roosts during the October 2021 site visit, and no evidence of roosting bats (e.g. urine staining or guano accumulations) was detected. The common wildlife species that occur on the site are regionally abundant, present in widely available habitats in the region, and will continue to be present on the site following construction. Additionally, the project would impact only a very small proportion of their regional populations, and the number of individuals likely to be displaced by habitat disturbance and loss would be extremely small with respect to the amount of suitable habitat available in the region. Also, the landscaping proposed by the project would provide resources useful to some of the common wildlife species currently using the site. Thus, impacts on most common species and their habitats resulting from the implementation of the project would not meet the thresholds of having a substantial adverse effect, and would be considered less than significant. However, all native bird species are protected by the MBTA and California Fish and Game Code, and measures would be implemented to avoid violation of these laws (see MM BIO-1.1).

The plant species observed in uplands on the project site during the reconnaissance-level survey are not regulated under state or federal laws and are not listed as rare by the CNPS. All native plant species observed or with any potential to occur on the site are regionally abundant and common in California. Therefore, implementation of the project would not have a substantial adverse effect on those common plant species and impacts on such species would be considered less than significant.

Impacts on Water Quality and Special Status Fish, Essential Fish Habitat, and Marine Mammal Species

The project will not directly impact (e.g., through grading, fill, or other direct means) any aquatic or tidal marsh habitat. However, cantilevered sections of the proposed bike and pedestrian trail will cross over 0.04 acre of muted tidal marsh habitat. Although this habitat may receive some light, shading from the cantilevered structures would result in long-term degradation of this habitat. Additionally, construction activities in areas immediately adjacent to the tidal marsh could result in direct and indirect impacts on water quality in the ditch, which could then be transmitted into the unnamed tidal slough north of the project site. Such impacts could potentially occur as a result of sediment mobilization, or spills of fluids or materials into the ditch, during construction activities within the banks of the ditch. Indirect impacts on water quality may also occur as a result of construction activities that occur elsewhere on the project site above the top of bank of the drainage ditch. After construction has been completed, runoff from the project site could potentially be contaminated with chemicals or other materials that could eventually reach the unnamed tidal slough and other estuarine waters in the area.

Although special status fish, such as the green sturgeon, longfin smelt, Central California Coast steelhead Central Valley fall-run Chinook salmon, and Pacific lamprey; essential fish habitat; and marine mammals, such as the harbor seal, are not expected to occur within the muted tidal ditch

along the northern edge of the project site, contaminated water in the ditch could affect these species and their habitats if poor quality water were to reach the unnamed tidal slough to the north.

As discussed in Section 3.10 Hydrology and Water Quality, impacts on water quality from project construction activities will be avoided and minimized by implementing erosion and sediment control measures, as well as standard best management practices for work near aquatic environments. To prevent stormwater runoff pollution, promote infiltration, and hold/slow down the volume of water coming from a site after construction has been completed, the project will comply with the California Regional Water Quality Control Board, San Francisco Bay Region, and Municipal Regional Stormwater National Pollutant Discharge Elimination System Permit. Compliance with permit conditions to protect water quality would minimize the potential for impacts to water quality and to sensitive species that inhabit downstream tidal waters due to increases in erosion, sedimentation, and turbidity as well as releases of pollutants. These measures would also minimize the release of pollutants to waters in the drainage ditch and tidal slough, thereby protecting water quality in these areas. Therefore, project activities are not expected to result in substantial adverse indirect effects on special status fish, essential fish habitat, or marine mammal species would be less than significant.

Impacts on Nonbreeding Special Status Birds and Mammals

Several special status bird and mammal species occur on the project site as nonbreeding migrants, transients, or foragers, but they are not known or expected to breed or occur in large numbers within or near the project impact areas. These are the tricolored blackbird, Vaux's swift, San Francisco common yellowthroat, Bryant's savannah sparrow, American peregrine falcon, pallid bat, and monarch butterfly.

The tricolored blackbird (a state threatened species) is not expected to occur on the project site as a breeder due to the absence of suitable breeding habitat, but individuals may occur occasionally as foragers during the nonbreeding season. The Bryant's savannah sparrow and San Francisco common yellowthroat (California species of special concern) breed in marshes at Inner Bair island to the north, and individuals may forage in muted tidal marsh and ruderal grassland habitat on and adjacent to the site year round. The American peregrine falcon (a state fully protected species) is not expected to breed on the project site due to a lack of suitable nesting habitat. Individuals of this species occasionally forage in the project vicinity in small numbers. The pallid bat and Vaux's swift (California species of special concern) may be present on the project site as occasional foragers, but are not expected to breed on the project site due to a lack of suitable habitat, and there are no known breeding records of these species on or adjacent to the site. Nevertheless, individual pallid bats from more remote colonies could potentially forage over the ruderal ditch bank and marsh habitats on the site on rare occasions, and individual Vaux's swifts could potentially forage over these habitats during migration. Monarch butterflies likely make little to no use of the site itself but are expected to occasionally migrate through the site.

Proposed project activities would have some potential to impact foraging habitats and/or individuals of these species. Construction activities might result in a temporary indirect impact through the alteration of foraging patterns (e.g., avoidance of work sites because of increased noise and activity levels during maintenance activities) but would not result in the loss of individuals, as individuals of these species would fly away from any construction areas or equipment before individuals could be injured or killed. Further, the project site does not provide important foraging habitat used regularly

or by large numbers of individuals of any species. As a result, the project would have very little impact on these species' regionally available foraging habitat and no substantive impact on regional populations of these species.

Impacts on the Alameda Song Sparrow and White-Tailed Kite

Because Alameda song sparrows may nest in vegetation along the muted tidal drainage ditch adjacent to the northern portion of the project site, and white-tailed kites may nest in trees near (i.e. within 300 feet of) the project site, eggs or young in nests of these species may be killed or injured during construction activities as a result of destruction by construction personnel or equipment, or removal of vegetation containing nests. In addition, construction activities causing a substantial increase in noise, movement of equipment, or human presence near (i.e., within 100 feet for Alameda song sparrows and 300 feet for white-tailed kites) active nests could result in the abandonment of nests, and possibly the loss of eggs or young as a result. Increased human activity may also affect the behavior of birds, causing them to avoid work sites and possibly exposing them to increased competition with other birds in the area to which they disperse and to increased levels of predation caused by their unfamiliarity with the new area. Increases in human concentration and activity associated with construction in the vicinity of the project site may also result in an increase in native and nonnative predators that would be attracted to trash left in the work site, and in a reduction in the quality of breeding or foraging habitat caused by the introduction of non-native vegetation. Shading by cantilevered sections of trail will result in the permanent loss of 0.04 acre of muted tidal marsh, and grading activities will result in the permanent loss of 0.03 acre of ruderal ditch bank habitat. These areas provide potential foraging habitat for the Alameda song sparrow. In addition, increased sedimentation or hazardous material spills from construction activities may result in the temporary or permanent degradation of water quality and, hence, habitat quality in wetland habitats downstream from work sites, which could negatively affect habitat quality for the Alameda song sparrow.

Following completion of construction, increased human activity on the project site could potentially disturb these species to the point that they no longer occupy suitable habitat on or near the project site. However, given the presence of a steel supply business on the site, baseline disturbance may already limit the potential for these species to breed on or very near the site.

At most, two or three pairs of Alameda song sparrows and one pair of white-tailed kites could potentially nest near the project site, close enough to the site to potentially be indirectly affected by construction activities and subsequent use of the project site (i.e., within 100 feet for Alameda song sparrows and 300 feet for white-tailed kites). These birds are not particularly rare in the region, and suitable habitat for these species within the region is relatively abundant. Therefore, the permanent loss of a small amount of nesting and foraging habitat for these species on the project site would not result in appreciable impacts on their regional populations. Further, the potential disturbance of nesting and loss of eggs or young in nests of up to two or three pairs of Alameda song sparrows and one pair of white-tailed kites as a result of construction activities is not expected to result in a substantial impact on their regional populations due to a loss of habitat or individuals. Therefore, this impact would be less than significant. However, both of these species (as well as all native bird species) are protected by the MBTA and California Fish and Game Code. If nesting birds are present during construction, they may be impacted directly or indirectly by operation of equipment, increased noise, and increased human presence. Impacts to common native nesting birds and the

aforementioned special-status birds would be considered a significant impact. The following mitigation measures would reduce impacts to nesting birds to a less than significant level.

Impact BIO-1: Construction activities could impact common native nesting birds and special-status birds such as Alameda Song Sparrow and White-Tailed Kite.

Mitigation Measures: The following mitigation measures would reduce impacts to nesting birds to a less than significant level:

MM BIO-1.1: For the protection of special-status birds and native nesting birds protected by the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFGC), future project construction activities shall occur from September 1 – January 31 (inclusive) outside of the nesting season, to the extent feasible.

If work cannot be scheduled to occur outside of the nesting season, and project construction activities (grading, staging, etc.,) are initiated during the nesting season (February 1 – August 31, inclusive), a qualified wildlife biologist shall conduct a nesting bird survey no more than 14 days prior to the start of project construction activities, such as grading or staging, and prior to issuance of any grading permit. If no active nests are identified during the surveys, no impacts will occur to birds and work shall progress without restriction. If active nests are identified, a no-disturbance buffer around the nest shall be implemented to avoid impacts to nesting birds. Buffers shall be determined by a qualified biologist, and typically range from 25 feet to 500 feet depending on the species, nest location, and protection status of that species. After an active nest is determined to no longer be active, because of young fledging or predation, the buffer around the nest shall be removed and work shall progress without restriction.

With implementation of mitigation measure MM BIO-1.1, the project would not significantly directly or indirectly impact nesting birds present during construction due to operation of equipment, increased noise, and increased human presence. **(Less than Significant Impact with Mitigation Incorporated)**

Impacts on Wildlife from Lighting

The project would construct buildings and other features (e.g., pedestrian walkways and parking areas) that may increase the amount of lighting within and around the project site. Lighting would be the result of fixtures illuminating buildings, building architectural lighting, and parking lot and pedestrian lighting. Exterior lighting elements on the site would include decorative 360 degree luminaires, six inch round downlights, and four inch round directional wall-mounted fixtures. All of these lights incorporate some shielding to reduce light from projecting upwards, but the 360 degree luminaires are not fully shielded to reduce the spread of light outwards into adjacent areas. Depending on the location, direction, and intensity of the project's exterior lighting elements, lighting can potentially spill into adjacent natural areas, thereby resulting in an increase in lighting compared to existing conditions. Areas to the east, west, and south of the project site are primarily developed and do not support sensitive species that might be significantly impacted by illuminance

from the project. However, some light would spill northwards into the marsh and wetlands habitats along the muted tidal drainage ditch (on and immediately adjacent to the project site). This area provides habitat for a variety of wildlife species, including sensitive species such as the Alameda song sparrow, salt marsh harvest mouse, and salt marsh wandering shrew.

Many animals are sensitive to light cues which influence their physiology and shape their behaviors, particularly during the breeding season. Artificial light has been used as a means of manipulating breeding behavior and productivity in captive birds for decades, and has been shown to influence the territorial singing behavior of wild birds. While it is difficult to extrapolate results of experiments on captive birds to wild populations, it is known that photoperiod (the relative amount of light and dark in a 24-hour period) is an essential cue triggering physiological processes as diverse as growth, metabolism, development, breeding behavior, and molting. This holds true for birds, mammals, and other taxa as well, suggesting that increases in ambient light may interfere with these processes across a wide range of species, resulting in impacts on wildlife populations.

Artificial lighting may indirectly impact mammals and birds by increasing the nocturnal activity of predators such as owls, hawks, and mammalian predators. The presence of artificial light may also influence habitat use by rodents and breeding birds by causing avoidance of well-lit areas, resulting in a net loss of habitat availability and quality.

Wildlife species using the muted tidal drainage ditch, unnamed tidal slough, and Inner Bair island may be subject to increased predation, decreased habitat availability (for species that show aversions to increased lighting), and alterations of physiological processes if development under the proposed project produces appreciably greater illuminance than the existing conditions. The project would include the following mitigation measures to minimize lighting as part of the project design.

Impact BIO-2: Artificial lighting could have a potentially significant impact on local wildlife populations due to the high ecological value of these adjacent habitat areas and the rarity of some of the species inhabiting these areas.

Mitigation Measures: The project would include the following mitigation measures to minimize lighting impacts as part of the project design:

MM BIO-2.1: Shielding of Lights. All exterior lighting on the project site will be shielded to block illumination from shining upward, or northward into the muted tidal drainage ditch, unnamed tidal slough, and Inner Bair Island to the north. The lit portion of light fixtures (i.e., the illuminants) shall be shieled from view to fish, birds, or mammals in the tidal marsh or muted tidal ditch. The project's lighting plan shall be reviewed and approved by the Redwood City Planning Division for compliance prior to issuance of a building permit.

MM BIO-2.2: Orientation of Lights. Lights installed will be directed downward and, in the northern part of the project site, inward toward the project site (away from marsh habitats to the north), in order to limit the amount of light spilling into natural areas outside of the project site and preventing animals in those sensitive habitats from being exposed to glare/luminance from the light fixtures. The project's lighting plan shall be reviewed and approved by the

Redwood City Planning Division for compliance prior to issuance of a building permit.

MM BIO-2.3: Minimize Exterior Lighting. All exterior lighting used on the project site shall be Dark Sky Approved[26] lighting. The project shall include the installation of motion-sensor lighting and automatic light shut-off mechanisms. No red exterior lighting shall be used on the project site. The project's lighting plan shall be reviewed and approved by the Redwood City Planning Division for compliance prior to issuance of a building permit.

With implementation of mitigation measures MM BIO-2.1 through MM BIO-2.3, the project would not significantly directly or indirectly impact wildlife due to artificial lighting. **(Less than Significant Impact with Mitigation Incorporated)**

Impacts due to Bird Collision

Terrestrial land uses and habitat conditions on the project site and in the surrounding areas to the east, west, and south consist primarily of developed areas, such as buildings (primarily of one or two stories), parking lots, and roads. Vegetation in most of these areas is very limited and consists primarily of non-native landscaped trees and shrubs. Nonnative vegetation supports fewer of the resources required by native birds than native vegetation, and the structural simplicity of the vegetation (without well-developed ground cover, understory, and canopy layers) further limits resources available to birds. Therefore, although a number of bird species will regularly use the vegetation on the project site and surrounding developed areas, they typically do so in low numbers. As a result, the number of individuals landbirds that inhabit and regularly use vegetation on the project site at any given time is relatively low under existing conditions.

Under the proposed project conditions, the number of birds that use the site would be expected to somewhat increase following project construction due to the proposed expansion of landscape areas on the site and the planting of additional landscape trees, shrubs, and other vegetation. Landscaped areas throughout the project site would be planted primarily with nonnative trees, and a mix of predominantly nonnative and some native shrubs and herbaceous plants. While this vegetation may offer improved cover and foraging opportunities compared to existing conditions (as the site currently has almost no vegetation), it would not create high-quality bird habitat within this area.

Landbirds that would occur on the site and in the project vicinity would be attracted to trees and landscaped areas and would primarily move between the small areas of landscaping on the site and in the surrounding vicinity. Moderate numbers of migratory songbirds are often concentrated at the edge of the San Francisco Bay during spring and fall migration, however, they tend to use more heavily vegetated areas such as riparian corridors or large, well-vegetated parks (such as Coyote Point in San Mateo, or Shoreline Park in Mountain View). No heavily vegetated park areas or natural habitats (such as riparian vegetation) that would attract migrating songbirds are present in the vicinity of the project site nor would they be present with project implementation. Additionally, the project

[26] Exterior lighting fixtures that meet the International Dark-Sky Association's standards for artificial lighting minimize glare while reducing light trespass and skyglow, and are required to be fully shieled and minimize the amount of blue light in the nighttime environment (Source: International Dark-Sky Association. 2020)

site is not located between two high-quality habitat areas such that songbirds would be flying past the site at an altitude as low as the proposed buildings. As a result, there is no expectation that migratory songbirds would be particularly attracted to, or would make heavy use of, the habitats in the site vicinity.

However, the project site is adjacent to an unnamed tidal slough and Bair Island, which provide habitat for many species of waterbirds and marsh-associated birds. A review of bird hotspots in the immediate project vicinity indicates that approximately 150 species of birds are found along the unnamed tidal slough and at Bair Island. The majority of these species are common resident, migrant, or wintering wading birds, waterfowl, and passerines (i.e., songbirds). Representative waterbirds in these areas include the Caspian tern (*Hydroprogne caspia*), least sandpiper (*Calidris minutilla*), western sandpiper (*Calidris mauri*), marbled godwit (*Limosa fedoa*), American avocet (*Recurvirostra americano*), dunlin (*Caldris alpina*), American wigeon (*Mareca americana*), green-winged teal (*Anas crecca*), long-billed curlew (*Numenius americanus*), canvasback (*Aythya valisineria*), black-bellied plover (*Pluvialis squatarola*), short-billed dowitcher (*Limnodromus griseus*), northern shoveler (*Spatula clypeata*), and willet (*Tringa semipalmata*).

In general, bird species that are attracted to marsh and aquatic habitats are expected to move past the project site when flying along the unnamed tidal slough, or when flying between habitats in the site vicinity. The number of these birds moving past the site will vary by time of year and by species. Many birds, such as waterfowl, often tend to move in large groups, while other species, such as Alameda song sparrows, will move through individually. Local bird numbers also vary by time of year, as many birds form small to large flocks during winter and migration and occur in more widely spaced pairs during the breeding season. However, due to the high importance of Bair Island to regional bird populations in Redwood City, relatively large numbers of birds that are associated with these habitats may fly past the project site relative to the size of regional populations. Resident birds that are present in the vicinity year-round also use habitat along the unnamed tidal slough in moderate numbers for foraging. As a result, higher numbers of birds are expected to be present along the northern boundary of the project site compared to the project site itself and surrounding developed areas of Redwood City. Shorebirds and waterbirds are unlikely to disperse from the San Francisco Bay, Bair Island, or unnamed tidal slough onto the project site, as these species are strongly associated with tidal habitats and open water. These species are also not expected to move in numbers between the Bay or its shoreline and Redwood Creek southeast of the project site. Therefore, no waterbirds are expected to move onto or through the project site regularly or in numbers.

The only high-quality habitat for state and federally listed bird species (i.e., the California Ridgeway's rail and California black rail) in the vicinity is located well north of the site, and these species are not expected to fly past the site on a regular basis (and, hence, are not expected to be at-risk for collisions with glass on the proposed buildings). Small numbers of San Francisco common yellowthroats, Alameda song sparrows, and Bryant's savannah sparrows, all California species of special concern, as well as small numbers of white-tailed kites, occur on or near the project site and are expected to fly past or occur on the site in small numbers year-round. Several other sensitive species may occasionally fly over the site as occasional migrants, transients, or foragers, but are also not expected to occur on the site in appreciable numbers. No additional sensitive or rare bird species are expected to occur in the site vicinity.

However, landbirds utilizing ruderal, marsh, and wetland habitats along the unnamed tidal slough may disperse outward from these areas looking for other foraging, nesting, or roosting sites. During such dispersal, these birds could move toward/onto the project site to look for feeding and resting opportunities in landscape vegetation, even though they are not particularly attracted to, or expected to make heavy use of, the vegetation on the project site.

It has been well documented that glass windows and building facades can result in injury or mortality of birds due to birds' collisions with these surfaces. Because birds do not perceive glass as an obstruction the way humans do, they may collide with glass when the sky or vegetation is reflected in glass (e.g., they see the glass as sky or vegetated areas); when transparent windows allow birds to perceive an unobstructed flight route through the glass (such as at corners); and when the combination of transparent glass and interior vegetation (such as in planted atria) results in attempts by birds to fly through glass to reach that vegetation. The extent of glazing on a building and the presence of vegetation opposite the glazing are known to be two of the strongest predictors of avian collision rates. Further, the greatest risk of avian collisions with buildings occurs in the area within 60 feet of the ground because this is the area in which most bird activity occurs.

Some migrating landbirds are expected to land along the unnamed tidal slough and at Bair Island, and some could disperse onto the project site from these areas. As a result, there is some potential for bird collisions with the outer facades of the new rowhouse units that would face the unnamed tidal slough. These birds may also disperse among the remaining rowhouse units, as pedestrian walkways and driveways lined with landscape vegetation extend from the margins of the property inward, between and surrounding all of the nine buildings. However, due to the relatively low quality of these resources, the distance that birds would travel onto the site is expected to be relatively short, and they are not expected to remain for long periods of time. Overall, low numbers of native birds are expected to use the site and thus encounter any hazards related to glazing on the buildings.

A number of architectural features of the proposed buildings reduce their overall collision risk to birds. The facades of the nine planned rowhouse units include opaque wall panels with somewhat limited areas of glazing, and much of the glazing is visually disrupted by overhangs, metal railings, and mullions. These features increase the visibility of the buildings to birds, allowing birds to perceive them as solid structures to be avoided. Furthermore, architectural features that are known to pose collision hazards to birds, such as large expanses of glass, transparent glass corners, and freestanding glass walls or railings, are absent from the proposed buildings. While some areas where landscape vegetation would be planted are adjacent to windows, the vegetation planned for the site is primarily nonnative and does not provide high quality nesting, foraging, or cover resources for native birds. Therefore, relatively low numbers of native, resident birds, and occasional migrants are expected to occur in landscape vegetation surrounding the buildings.

In summary, some birds flying along the San Francisco Bay and/or descending from migration toward the Bay shoreline are expected to reorient toward the project site and seek resting or foraging opportunities. Therefore, some aviation collisions with glass facades on the proposed buildings are expected to occur. However, due to the lack of feature-related hazards, such as large expanses of glass, transparent corners or freestanding glass railings, in addition to the presence of architectural features that increase the visibility of the buildings to birds (overhangs, metal railings, and window mullions), the frequency of such collisions would be low. As a result, avian injury or mortality due to bird collisions with the proposed buildings would affect a very small proportion of regional

populations of the bird species that use the site or fly through the site during migration. Therefore, this impact would not meet the threshold of having a substantial adverse effect on these populations and would be a less than significant impact.

Impacts on the Salt Marsh Harvest Mouse and Salt Marsh Wandering Shrew

The quality of habitat in the muted tidal marsh within and adjacent to the project site is low for salt marsh harvest mice and salt marsh wandering shrews, and it is possible that neither species is present. However, small numbers of salt marsh harvest mice and salt marsh wandering shrews could potentially occur in the muted tidal marsh habitat along the drainage ditch, including within the 0.04-acre portion of this habitat that occurs on the project site.

In the absence of protective measures, project activities may result in the injury or mortality of salt marsh harvest mice and salt marsh wandering shrews. Due to the immediately adjacent proximity of project activities to habitat for this species, individuals could be crushed by equipment, vehicle traffic, or worker foot traffic. Project noise and other disturbances could cause individuals to flee to nearby habitats, exposing them to increased competition from conspecifics already occupying these areas and increased levels of predation due to unfamiliarity with the new habitat or lack of sufficient cover. Due to the rarity of these species, these impacts would be significant.

Impact BIO-3: Project activities may result in the injury or mortality of salt marsh harvest mice and salt marsh wandering shrews.

Mitigation Measures: The project would include the following mitigation measures to reduce impacts from project activities to salt marsh harvest mice and salt marsh wandering shrews:

MM BIO-3.1: Worker Environmental Awareness Program. Before any construction activities begin, a qualified biologist will conduct a training session for all construction personnel. At a minimum, the training will include descriptions of the salt marsh harvest mouse and salt marsh wandering shrew, their habitats, the laws protecting them, the general measures that are being implemented to conserve these species as they relate to the project, and the boundaries within which the project may be accomplished.

MM BIO-3.2: Exclusion Barrier. Prior to the start of construction activities below top of bank, a barrier will be installed along the northernmost limits of the work area to exclude salt marsh harvest mice and salt marsh wandering shrews from the project site. This barrier, which will be shown on the project plans and will be constructed under the guidance of a qualified biologist, will consist of a three-foot tall, tight cloth, smooth plastic, or sheet-metal (or similar material approved by the USFWS) fence toed into the soil at least three inches deep and supported with stakes placed on the inside of the barrier. A qualified biologist will conduct a preconstruction survey of the area where vegetation was removed prior to construction access, and will monitor the installation of the barrier. Following the installation of the barrier, designated construction personnel will check its integrity each morning that construction activities occur, and will initiate repairs immediately as needed.

MM BIO-3.3: Environmentally Sensitive Area Fencing. Within the banks of the muted tidal drainage ditch, the project limits will also be clearly demarcated with Environmentally Sensitive Area fencing to avoid inadvertent disturbance of any habitat outside of the designated construction area during construction activities. This fencing can be combined with the exclusion barrier but must not be outside that barrier.

MM BIO-3.4: Immediate Work Stoppage. If a salt marsh harvest mouse or salt marsh wandering shrew, or an animal that could be a harvest mouse or wandering shrew (e.g., a similar species of mouse or shrew), is observed on the project site during project activities, all work that could result in the injury or death of the individual will stop immediately and the qualified biologist will be immediately notified. The animal will be allowed to leave the area on its own and will not be handled.

With implementation of mitigation measures MM BIO-3.1 through MM BIO-3.4, the project would not significantly impact salt marsh harvest mice and salt marsh wandering shrews. **(Less than Significant Impact with Mitigation Incorporated)**

Impacts to Muted Tidal Marsh Habitat due to Invasive Weeds

The project has the potential to degrade muted tidal marsh habitat on and downstream of the project site through the introduction of invasive weeds during and following project construction. Invasive weeds, such as perennial pepperweed (*Lepidium latifolium*), could spread into marsh habitats downstream when seeds are attached to vehicles, equipment, and clothing. The spread of pepperweed and other invasive plants could displace native marsh vegetation and reduce habitat quality for salt marsh harvest mice and salt marsh wandering shrews by reducing the availability of plants they use for refugia and nesting, particularly downstream of the site where these species are known to occur.

Impact BIO-4: Project activities may result in the introduction of invasive weeds during and following project construction which could lead to degradation of muted tidal marsh habitat.

Mitigation Measures: The project would include the following mitigation measure to offset impacts associated with the spread of invasive plants during project implementation:

MM BIO-4.1: Implement Invasive Weed Best Management Practices. The invasion and/or spread of noxious weeds will be avoided by the use of the following invasive weed best management practices:

- The use of moderate or highly invasive and/or noxious weeds (as defined by California Department of Food and Agriculture) for landscaping is prohibited.
- During project construction, all seeds and straw materials used on-site will be weed-free rice (or similar material acceptable to the City), straw, and all gravel and fill material will be certified weed-free to the

satisfaction of the City. Any deviation from this will be approved by the City.

- During project construction, vehicles and all equipment will be washed (including wheels, undercarriages, and bumpers) before entering the proposed project footprint. Vehicles coming to the site will be cleaned at existing construction yards or legally operating car washes.
- Following construction of the project, a standard erosion control seed mix (acceptable to the City) from a local source will be planted within the temporary impact zones on any disturbed ground that will not be under hardscape, landscaped, or maintained. This will minimize the potential for the germination of the majority of seeds from non-native, invasive plant species.

With implementation of mitigation measures MM BIO-4.1, the project would reduce the potential spread of invasive plants to a less than significant level. **(Less than Significant Impact with Mitigation Incorporated)**

Loss of Muted Tidal Marsh Habitat

The project will not directly impact (e.g., through grading, fill, or other direct means) any tidal marsh habitat. However, cantilevered sections of the proposed bike and pedestrian trail will cross over 0.04 acre of muted tidal marsh habitat. Although this habitat may receive some light, shading from the cantilevered structures would result in long-term degradation of this habitat, which provides potential foraging habitat for salt marsh harvest mice and salt marsh wandering shrews. This habitat is of low quality due to its small size and isolation from higher quality marsh habitats to the north, but it is possible that individual salt marsh harvest mice and salt marsh wandering shrews occur here. Due to the rarity of the salt marsh harvest mouse and salt marsh wandering shrew, project impacts to their habitat would be considered significant, even though the existing habitat is of low quality.

Impact BIO-5: The project would result in the permanent loss of muted tidal marsh habitat, which is potential habitat for salt marsh harvest mice and salt marsh wandering shrews.

Mitigation Measures: The project would include the following mitigation measures to reduce impacts due to the loss of habitat:

MM BIO-5.1: Compensatory Mitigation. For permanent impacts to 0.04 acre of muted tidal marsh, the project applicant will provide compensatory migration for impacts to habitat of the salt marsh harvest mouse. Mitigation may be satisfied through project-specific conservation and management of suitable habitat occupied by these species and/or the purchase of credits at a conservation bank that has been approved by the City and CDFW. The conservation bank does not necessarily need to be approved for salt marsh harvest mouse mitigation as long as it provides suitable habitat for the species in an area expected to support the species (e.g., the San Francisco Bay Tidal Wetlands Bank in Redwood City would be appropriate).

If compensatory mitigation is provided through project-specific conservation and management of suitable habitat, the project applicant will provide the mitigation at a 2:1 (mitigation: impact) ratio on an acreage basis for permanent impacts to suitable habitat. If compensatory mitigation is provided through the purchase of credits at an approved conservation bank, mitigation will be provided at a 1:1 (mitigation: impact) ratio for permanent impacts.

If the project applicant provides mitigation through project-specific conservation and management of suitable habitat, the project applicant will prepare a Habitat Mitigation and Monitoring Plan describing the proposed mitigation lands for conservation/management, and monitoring that will occur to ensure that those lands continue to provide suitable habitat conditions. If the mitigation lands are suitable for multiple species and habitats, then the project applicant may rely on such lands to mitigate impacts to multiple species and habitats. The Habitat Mitigation and Monitoring Plan will be prepared by a qualified ecologist and will include the following:

- A summary of habitat impacts and proposed acres of habitat conservation;
- The location of habitat conservation and enhancement site(s), and description of existing site conditions;
- A monitoring plan (including performance criteria, methods, data analysis, reporting requirements, and schedule). At a minimum, performance/success criteria will include demonstration of the presence of suitable habitat for the salt marsh harvest mouse, and no more than five percent invasive species by cover by year five.

The project applicant will also ensure adequate resources, including funding to implement the mitigation, maintenance, and monitoring of the mitigation lands.

If compensatory mitigation is provided through a purchase of mitigation credits, the project applicant will purchase the credits from a conservation bank in consultation with the appropriate resource agencies prior to commencement of project construction.

With implementation of mitigation measure MM BIO-5.1, the project would reduce the impacts due to habitat loss to a less than significant level. **(Less than Significant Impact with Mitigation Incorporated)**

Construction Impacts to Small Mammals

Small mammals that inhabit natural areas along the muted tidal drainage ditch and unnamed tidal slough north of the project site would be subjected to increased noise and vibrations during construction. However, no studies have been conducted to determine what noise levels result in disturbance of salt marsh harvest mice or salt marsh wandering shrews. Should salt marsh harvest mice or salt marsh wandering shrews in nearby marsh habitat be disturbed by project activities, including noise or vibration, and move away from the source, they would move away from the

project site along the muted tidal drainage ditch, or toward higher-quality marsh habitat farther out along the unnamed tidal slough. Therefore, project noise levels are not expected to cause salt marsh harvest mice or salt marsh wandering shrews to flush out into the open, or to increase mortality of individuals due to predation. Furthermore, suitable habitat adjacent to the project site would only be subjected temporarily to a substantial increase in noise and vibration during construction; following completion of construction, individual mice or shrews would re-occupy any habitat that was vacated during construction. Therefore, project noise impacts would not result in take of individual salt marsh harvest mice or salt marsh wandering shrews.

Construction of the project would provide potential perching sites for raptors within trees, on light posts, and on buildings within the project site. Raptors are likely to perch on the new buildings when hunting for prey, which may include salt marsh harvest mice and salt marsh wandering shrews that inhabit tidal marsh habitats to the north. However, existing trees, light poles, and buildings currently provide perches for raptors on the project site. Relative to baseline conditions, the construction of the project is not expected to result in a substantial increase in the predation by raptors of small mammal species inhabiting adjacent tidal marsh habitats, or to affect regional populations of these small mammal species. **(Less than Significant Impact)**

Impacts to Salt Marsh Harvest Mice and Salt Marsh Wandering Shrews due to Predation

The project includes outdoor eating areas which represent sources of food waste. The presence of food waste on the site would attract native and nonnative nuisance wildlife such as American crows, common ravens (Corvus corax), gulls (Larus spp.), raccoons, and others, which prey on salt marsh harvest mice and salt marsh wandering shrews. In addition, the presence of off-leash domestic dogs (*Canis familiaris*) and feral/outdoor cats (*Felis catus*) may result in an increase in predation and/or harassment of salt marsh harvest mice and salt marsh wandering shrews inhabiting nearby marsh habitats. Due to the rarity of these two small mammal species, an increase in local numbers of these animals due to increased available food waste, an increase in outdoor pets, and/or the presence of one or more feral cat feeding station(s) maintained by the community would be a potentially significant impact.

Impact BIO-6: The project could result in an impact to salt marsh harvest mice and salt marsh wandering shrews from an increase in predation due to increased available food waste, an increase in outdoor pets, and/or the presence of one or more feral cat feeding station(s).

Mitigation Measures: The project would include the following mitigation measures to reduce impacts from domestic animals introduced by the project and the project's food waste:

MM BIO-6.1: Prohibit Outdoor Cats and Off-Leash Dogs. Outdoor cats and off-leash dogs will be prohibited on the property following project construction. This measure will be incorporated into the covenants, conditions & restrictions (CC&Rs) for the project and enforced by the property's homeowners association.

MM BIO-6.2: Food Waste Management. The CC&R's for the project shall include the following measures to minimize impacts on salt marsh harvest mice and salt marsh wandering shrews due to the attraction of nuisance predators to the project site:

- Any bins used for food waste shall include lids that seal tightly to prevent access by animals and incorporate a mechanism to prevent them from being inadvertently left open when not in active use.
- Outdoor trash and recycling receptacles shall be routinely emptied throughout the day by the janitorial service, thus ensuring that cans do not fill up and allow food waste to spill out.
- The homeowners association shall ensure that any litter on the site is picked up daily, and no food trash is left on-site overnight.
- Signs shall be placed on trash and recycling receptacles reminding users to close the lids so that they will not be inadvertently left open.
- Signs shall be placed informing residents and visitors to not feed feral or wild mammals, including feral cats, on the property.
- Educational signs shall be posted explaining the importance and sensitivity of nearby marsh habitats, prohibiting feeding wildlife (including feral cats) on the property, and prohibiting outdoor cats and off-leash dogs. In addition, signs will advise residents and visitors to dispose of food waste in outdoor areas appropriately to avoid attracting and subsidizing nuisance species.

This measure will be incorporated into the covenants, conditions & restrictions (CC&Rs) for the project and enforced by the property's homeowners association. The homeowners association would provide an annual report documenting the project's compliance with this mitigation measure to the Department of Community Development and Transportation for approval. The report will include photo documentation with timestamps and written documentation.

With implementation of mitigation measures MM BIO-6.1 through MM BIO-6.2, the project would not significantly directly or indirectly impact salt marsh harvest mice and salt marsh wandering shrews due to predation. **(Less than Significant Impact with Mitigation Incorporated)**

Lighting associated with the project could result in impacts on salt marsh harvest mice and salt marsh wandering shrews by increasing the likelihood of predation and/or deterring these species from using well-lit habitat, thus resulting in the potential loss of individuals and effective habitat in well-lit areas immediate adjacent to the project site. Lighting that increases nighttime illumination in areas of tidal and muted tidal salt marsh could potentially result in permanent functional habitat loss, as salt marsh harvest mice and salt marsh wandering shrews may avoid illuminated areas at night. Additionally, increases in illumination of marsh habitat could increase predation on these species by making them more visible to predators. Given the rarity of these species, any loss of use of suitable habitat or increase in predation of these species as a result of an increase in lighting would be a significant impact. However, implementation of mitigation measures MM BIO-1.2 through MM BIO-1.4 would

reduce these impacts on salt marsh harvest mice, salt marsh wandering shrews, and their habitat to less than significant levels.

With implementation of mitigation measures MM BIO-1.1, MM BIO-2.1 through MM BIO-2.3, MM BIO-3.1 through MM BIO-3.5, MM BIO-4.1, MM BIO-5.1, and MM BIO-6.1 through MM BIO-6.2, the project would not 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. **(Less than Significant Impact with Mitigation)**

Impact BIO-2:	The project would not 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. **(Less than Significant Impact with Mitigation Incorporated)**

Impacts due to the Spread of Nonnative and Invasive Species

Several nonnative, invasive plant species occur in the ruderal ditch bank and developed habitat on the project site. Of these, wild oats and black mustard are rated as moderately invasive; therefore, they can cause substantial ecological impacts on physical processes, vegetation structure, and plant and animal communities. No species that are considered highly invasive were observed within the study area. However, fennel (*Foeniculum vulgare*) and yellow star thistle (*Centaurea solstitalis*) occur in the habitat immediately adjacent to the project site and are considered to be highly invasive with potential to cause significant ecological impacts. Invasive species can spread quickly and be difficult to eradicate, as they produce seeds that germinate readily following disturbance. Further, disturbed areas are highly susceptible to colonization by nonnative, invasive species that occur locally, or whose propagules are transported by personnel, vehicles, and other equipment.

Project development would result in a large portion of the site being subject to soil disturbance. Activities such as trampling, equipment staging, and vegetation removal are all factors that would contribute to disturbance. Areas of disturbance could promote the spread of nonnative species, which could degrade the ecological values of the wetlands that occur on and immediately adjacent to the project site and adversely affect native plants and wildlife that occur there. The introduction or spread of invasive weeds into sensitive wetland or riparian habitats would be a significant impact; however, implementation of mitigation measure MM BIO-4.1 would reduce impacts from invasive species to a less than significant level. **(Less than Significant Impact with Mitigation)**

Impacts on Ruderal Ditch Bank

The project would result in the permanent removal of 0.03 acre of ruderal ditch bank habitat below the top of bank of the muted tidal drainage ditch from construction of the outfall. Current habitat conditions of the ruderal ditch bank are of extremely low quality, containing scarce vegetation of primarily nonnative species and compacted soil. However, this area does provide some buffer between the developed uplands and the muted tidal marsh habitat below. The project would include a retaining wall along the top of bank of the ruderal ditch bank and an outfall will be constructed in the site's northwest corner, permanently converting 0.03 acre of this habitat to hardscape. While this

would cause the loss of whatever small buffer is provided by the current poorly vegetated bank, the proposed stormwater treatment upgrades would reduce negative impacts on water quality within the muted tidal ditch to a less than significant level (see Impact BIO-1). Due to the very poor habitat quality, the loss of 0.03 acre of ruderal ditch bank and impacts on the ruderal ditch bank would be less than significant.

With implementation of MM BIO-1.10, the project would have a less than significant impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS. (**Less than Significant Impact with Mitigation**)

Impact BIO-3:	The project would not have a substantial adverse effect on state or federally protected wetlands through direct removal, filling, hydrological interruption, or other means. **(Less than Significant Impact with Mitigation Incorporated)**

The project will not directly impact (e.g., through grading, fill, or other direct means) any tidal marsh habitat. However, approximately 0.04 acre of muted tidal marsh habitat will be indirectly impacted by the project. Wetlands serve a variety of important functions, such as sediment stabilization, sediment/toxicant retention, nutrient removal/transformation, and terrestrial wildlife species habitat. Even though the acreage of the muted tidal marsh habitat within the drainage ditch is small, wetlands are relatively scarce regionally, and even small wetland areas have disproportionate contributions to water quality, groundwater recharge, watershed function, and wildlife habitat in the region.

The project has been designed to avoid direct impacts to the muted tidal marsh habitat within the drainage ditch. However, permanent indirect impacts to the muted tidal marsh habitat will occur due to the anticipated loss of vegetation from shading of this habitat by cantilevered sections of the bike and pedestrian trail to be constructed along the site's northern boundary . In addition, construction activities located within the ditch may result in indirect impacts on water quality as well as the plant and animal species that occur in muted tidal marsh habitat in the drainage ditch through erosion and sedimentation. Bank erosion and sedimentation are potential effects of disturbance associated with construction within the banks of the ditch. Compliance with the Construction General Permit and all applicable BMPs for sediment control in the construction site will avoid and minimize such indirect impacts that could degrade the avoided muted tidal marsh. Water quality in the ditch should improve somewhat post-construction, due to the project's proposed upgraded stormwater treatment in compliance with the Municipal Regional Stormwater NDPES Permit.

While the 0.04-acre area of muted tidal salt mash to be permanently impacted by the project is small, permanent impacts would be significant due to the ecological importance and sensitivity of muted tidal marsh habitats and species that inhabit the drainage ditch unless mitigated. Implementation of compensatory wetland replacement required for the permanent loss of salt marsh harvest mouse habitat described in mitigation measure MM BIO-5.1, as well as mitigation measure MM BIO-3.3, which requires the placement of an environmentally sensitive area fence at the edge of avoided wetlands, would reduce these impacts to less-than-significant levels. (**Less than Significant Impact with Mitigation**)

Impact BIO-4:	The project would not 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. **(Less than Significant Impact)**

For many species, the landscape is a mosaic of suitable and unsuitable habitat types. Environmental corridors are segments of land that provide a link between these different habitats while also providing cover. Development that fragments natural habitats (i.e., breaks them into smaller, disjunct pieces) can have a twofold impact on wildlife: first, as habitat patches become smaller, they are unable to support as many individuals (patch size), and second, the area between habitat patches may become unsuitable for wildlife to traverse (connectivity).

The marsh and upland habitats along the unnamed tidal slough and muted tidal drainage ditch serve as a movement pathway for terrestrial species, providing vegetative cover and foraging opportunities. Common, urban-adapted species such as raccoons and striped skunks may use the vegetation along these waterbodies to move east and west through the project area. Small mammals, such as mice and shrews, will also use this vegetation as cover to move between habitats. A small portion of the project site extends down from the top of bank into the marsh habitat, and the project will result in the permanent removal of 0.04 acre of muted tidal marsh habitat within the muted tidal drainage ditch (due to shading of vegetation by cantilevered sections of trail) and 0.03 acre of ruderal ditch bank along the drainage ditch. Because the permanent impact areas within the drainage ditch are extremely small and positioned along the outer margin of the marsh habitat, development of the site would not impede animal movement along this wildlife movement pathway. In addition, the project site already consists of heavily disturbed habitats that are currently of little value to migrating wildlife. The redevelopment of the project site and removal of 0.07 acre combined of muted tidal marsh and ruderal habitat would have very little impact on wildlife movement, especially given the fact that the adjacent marsh would remain intact and navigable. Further, the terrestrial wildlife species that use the habitats are acclimated to high levels of disturbance and habitat fragmentation in the Redwood City area. Therefore, construction of the project would not result in significant impacts to the movements of individuals and would not rise to the level of a substantial adverse effect on habitat connectivity and wildlife movement. **(Less than Significant Impact)**

Impact BIO-5:	The project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. **(Less than Significant Impact)**

The project would remove ten trees. In accordance with the provisions of the City's tree protection ordinance (Chapter 35 of the Redwood City's Municipal Code), the project would comply with standard City tree removal permit conditions and replace trees that are removed in accordance with City tree removal policies. The project proposes to plant 157 new trees.

The project would comply with the City's tree protection ordinance, including obtaining a tree removal permit, and it would comply with conditions of the project's tree removal permit. Such compliance would reduce any potential impacts due to conflicts with the City's tree preservation ordinance to a less than significant level. **(Less than Significant Impact)**

Impact BIO-6:	The project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. **(Less than Significant Impact)**

The San Bruno Mountain Habitat Conservation Plan is the only Habitat Conservation Plan that has been approved in San Mateo County, but this plan does not cover the project site or the surrounding vicinity. No Natural Community Conservation Plans have been approved or are in preparation in San Mateo County. Therefore, the proposed project would not conflict with any adopted Habitat Conservation Plan or Natural Community Conservation Plans, or with any other approved local, regional, or state habitat conservation plans. **(Less than Significant Impact)**

3.4.2.2 *Cumulative Impacts*

Impact BIO-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant biological resources impact. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

Cumulative impacts arise due to the linking of impacts from past, current, and reasonably foreseeable future projects in the region. The geographic area for cumulative biological resources impacts includes the project site and its surrounding area. Future development activities in the City would result in impacts on the same habitat types and species that would be affected by the proposed project. The proposed project, in combination with other projects and activities in the area, could contribute to cumulative effects on special-status species. Other projects in the area that could adversely affect these species include office/retail/commercial development, mixed use, and residential projects.

It is expected that most current and future projects would mitigate any significant impacts through CEQA, Section 1602 of the California Fish and Game Code, or Section 401/404 of the Clean Water Act, as well as through the Federal Endangered Species Act and California Endangered Species Act consultation process. In addition, regional conservation plans protect a number of sensitive resources in the region and provide for the long-term conservation of these resources. Examples of such plans in San Mateo County include the San Bruno Mountain Habitat Conservation Plan, which protected several federally listed species on San Bruno Mountain. As a result, most projects in the region will mitigate their impacts on biological resources, minimizing cumulative impacts on these resources.

Additional cumulative impacts could occur as a result of project impacts on common species and habitats, which are not typically mitigated under CEQA. For instance, the project would result in the permanent loss of ruderal, landscaped, and developed habitats, which provide some value to the common plant and wildlife species that occur there. However, these common species and habitats are widespread throughout the region, such that there are no cumulative impacts to these species. Therefore, the project would not contribute to a substantial cumulative loss of these resources that would affect regional populations.

Most of the other foreseeable projects in the San Francisco Bay area that would affect muted tidal, tidal marsh, and upland transitional habitats are tidal restoration projects. Bair Island has been undergoing restoration to return the area to tidal wetlands, and will provide habitat for tidal and muted tidal marsh species such as the salt marsh harvest mouse. Similarly, the South Bay Salt Ponds Restoration Project is implementing tidal marsh restoration, including restoration and enhancement of upland transition zones, as well as intensive pond management of wildlife on 15,000 acres of former salt ponds in the South Bay. In addition, the California State Coastal Conservancy's Invasive Spartina Project annually removes introduced Spartina cordgrasses along Belmont Slough and elsewhere throughout the Bay, and is engaged in native salt marsh revegetation. These projects are expected to benefit tidal marsh habitats and associated plant and wildlife species in the long-term.

Climate change may have cumulative effects on species that utilize tidal and muted tidal marshes, such as those that occur along Belmont Slough adjacent to the project site. The global average temperature has risen by approximately 0.6 degrees Celsius during the 20th Century. There is an international scientific consensus that most of the warming observed has been caused by human activities, and that it is "very likely" that it is largely due to anthropogenic emissions of carbon dioxide and other greenhouse gases. Ongoing climate change may imperil species like the Ridgeway's rail and salt marsh harvest mouse, and the resources necessary for their survival, as climate change threatens to disrupt annual weather patterns and may result in a loss of their habitats and prey, and/or an increase in predator populations, parasites, and diseases. Where populations are isolated, increasing tide height as a result of changing climate may result in local extinction, with range shifts precluded by lack of suitable habitat at higher elevations.

Special-Status Species

Construction of the cumulative projects, including the proposed project, could result in a significant cumulative impact on nesting birds (if present during construction), birds due to collision with buildings, salt marsh harvest mouse, salt marsh wandering shrew, and plants/wildlife in general due to loss of habitat, invasive weeds, food waste, lighting, and the introduction of dogs and cats. Each project is subject to federal, state, and local regulations (including the MBTA, Fish and Game Code, and CEQA), which would avoid and/or minimize impacts to nesting birds.

The project, with the implementation of mitigation measures MM BIO-1.1 through MM BIO-1.13, would not have a cumulatively considerable contribution to a significant cumulative impact to nesting birds (if present during construction), birds due to collision with buildings, salt marsh harvest mouse, salt marsh wandering shrew, and plants/wildlife in general due to loss of habitat, invasive weeds, food waste, lighting, and the introduction of dogs and cats. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

Riparian Habitat, Other Sensitive Natural Community, Wetlands, Species Movement, Native Wildlife Nursery Use

As discussed under Impact BIO-2, BIO-3, and BIO-4, the project would have a less than significant impact on riparian habitat, other sensitive natural community, wetlands, species movement, or native wildlife nursery site use. Incorporation of mitigation measure MM BIO-2.1 would reduce impacts due to invasive weeds to a less than significant level. MM BIO-3.1 would reduce impacted to muted tidal marsh outside of or adjacent to work areas to a less than significant level. For these reasons, the

project would have a less than significant contribution to cumulative impacts to those biological resources. **(Less than Significant Cumulative Impact)**

Tree Preservation Ordinance

All the cumulative projects (including the proposed project) would be required to comply with the City's Tree Preservation Ordinance, including the planting of replacement trees. **(Less than Significant Cumulative Impact)**

3.5 CULTURAL RESOURCES

The discussion in this section is based in part on a Standard Literature Review and Historical Resources Assessment prepared for the project by PaleoWest, LLC in August 2021. The report is included as Appendix D.

3.5.1 Environmental Setting

3.5.1.1 *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.[27]

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 CRHR criteria are as follows:

1. **Criterion 1:** Associated with events that have made a significant contribution to the broad patterns of local or regional history of the cultural heritage of California or the United States.
2. **Criterion 2:** Associated with the lives of persons important to local, California or national history;
3. **Criterion 3:** Embodies the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possess high artistic values;
4. **Criterion 4:** Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

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

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.

[27] California Office of Historic Preservation. "CEQA Guidelines Section 15064.5(a)(3) and California Office of Historic Preservation Technical Assistance Series #6." Accessed February 7, 2022. http://www.ohp.parks.ca.gov/pages/1069/files/technical%20assistance%20bulletin%206%202011%20update.pdf.

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.

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

Redwood City General Plan

The General Plan includes policies for the purpose of avoiding or mitigating impacts from planned development in the City. The policies below are specific to cultural resources and are applicable to the proposed project.

Policy	Description
The Built Environment	
BE-4.2	Encourage carefully designed and sensitive infill development that creates harmony and compatibility with nearby structures of historic value and merit. Require new development to integrate with, if not enhance, the historic nature of the neighborhood through appropriate site patterns and building character.
BE-37.2	Preserve historic landmark structures, landscapes (including trees), trails, and sites that serve additional community needs, such as recreational open space and/or cultural needs.
BE-37.8	Permit removal of non-contributing elements of structures in or adjacent to designated historic resources to allow replacement by compatible, historically appropriate structures.

Redwood City Historic Preservation Ordinance

The Historic Preservation Ordinance (Chapter 40 of the City Municipal Code) is intended to safeguard the City's heritage by providing for the protection of historic landmarks, encourage public knowledge of the City's history, and foster a sense of identity in the community. The Historic Preservation Ordinance requires that applications or projects affecting historic resources comply with applicable local, state, and federal laws. Under the Historic Preservation Ordinance, the City also maintains a list of individual historic landmarks, resources, and districts.

Section 40.6 states that an improvement may be designated a historic landmark or historic site by the City Council, and any area within the City may be designated a historic district by the City Council pursuant to Section 40.7 of this Chapter if it meets the following criteria or other criteria established by the Planning Commission pursuant to Section 40.5 of this Chapter:

1. **Criterion A:** It exemplifies or reflects special elements of the City's cultural, aesthetic, or architectural history; or
2. **Criterion B:** It is identified with persons or events significant in local, state, or national history; or
3. **Criterion C:** It embodies distinctive characteristics of a style, type, period, or method of construction, or is a valuable example of the use of indigenous materials or craftsmanship; or
4. **Criterion D:** It is representative of the notable work of a builder, designer, or architect.

Historic Resources Advisory Committee and Cultural Resources Management Plan

The Historic Resources Advisory Committee (HRAC) actively pursues historic preservation projects in the City, such as overseeing management of the City's Historic Resources Inventory. The HRAC also developed and oversees implementation of a Cultural Resources Management Plan that outlines the City's policies for the treatment of historic resources impacted by development projects in the City. The Cultural Resources Management Plan is applied to all historic sites which have a potential for the on-site discovery, reconnaissance, and identification of a cultural resource.

3.5.1.2 *Existing Conditions*

Archaeological Resources

There are eight reported, but not officially recorded, cultural resource sites within the City, three of which are understood to be associated with Native Americans.[28] Within the City boundaries, there are 12 known prehistoric archaeological sites ranging from tool processing sites to habitation sites with burials. An additional site is considered to have multiple components. As discussed in the General Plan EIR, there is a high likelihood that unrecorded Native American cultural resources exist within the City boundaries.[29]

PaleoWest conducted a literature review and records search at the Northwest Information Center (NWIC) on October 12, 2021. No recorded archaeological resources were identified on the site or within the 0.25-mile search radius.

Historic Resources

The property was originally developed in 1963 as the Alan Steel & Supply Company and contains buildings constructed between 1963 and the mid-1980s (see Figure 3.5-1). Therefore, an evaluation of the site was completed by Architectural Historians working for PaleoWest in order to determine if the property is a historical resource under CEQA.

[28] Redwood City. *A New General Plan for Redwood City Draft Environmental Impact Report.* May 2010. Certified October 2010. Page 4.5-12.
[29] Ibid.

CEQA defines historically significant resources as "resources listed or eligible for listing in the CRHR." Eligibility for listing buildings, structures, objects, sites, and districts in the CRHR depends on factors of historic significance and integrity. A resource must have both significance and integrity to be considered eligible. The property is not recommended as eligible for listing in the CRHR or the Redwood City historic inventory, and is not a historical resource for CEQA, as explained below.

California Register of Historical Resources

Under CRHR Criterion 1, the property does not have association with any events that have made a significant contribution to broad patterns of history at the local, state, or national level. Since the property was initially developed in 1963, the light industrial buildings have served as a metal scrap yard to Redwood City residents and contractors. The property is not important within the context of scrap yards or the post-war development of Redwood City, and there is no evidence that any historically important events occurred at this location that would merit significance under this criterion.

Under CRHR Criterion 2, the property is not significant for any association with the lives of persons important to history. General contractor Henry Triano originally developed the property in 1963 and sold it to junk and scrap business owner Gerald Forrest in 1968. Research did not reveal that Triano or Forrest, or anyone else associated with the development and use of this property, made demonstrably significant contributions to their field of occupation or history.

Under CRHR Criterion 3, the historic-era buildings on the property are not significant because they do not possess distinctive characteristic of a type, period, or method of construction. The metal frame buildings are utilitarian in design, are a common building type, and lack high artistic value that would merit listing under CRHR Criterion 3.

Under CRHR Criterion 4, the historic-era buildings on the property are not significant as a source of important information regarding history. They do not appear to have any likelihood of yielding important information about historic construction materials or technologies.

Redwood City Historic Designation Criteria

Under Redwood City Criterion A, the property does not exemplify or reflect special elements of the City's cultural, aesthetic, or architectural history. Under Redwood City Criterion B, the property is not identified with persons or events significant in local, State, or national history. Under Redwood City Criterion C, the historic-era buildings on the property do not embody distinctive characteristics of a style, type, period, or method of construction, or are a valuable example of the use of indigenous materials or craftmanship. Under Redwood City Criterion D, the historic-era buildings on the property are not representative of the notable work of a builder, designer, or architect. The property is not a contributor to a previously identified historic district and does not appear to be associated with a potential historic district.

There are no known historic resources within the project's immediate vicinity.[30] The literature review and records search completed by PaleoWest identified two previously recorded resources within the

[30] City of Redwood City. General Plan EIR. Appendix F: Redwood City Known Historic Resources. May 2010.

0.25-mile search radius: a historic levee segment and a potentially historic building. The levee segment is associated with inner Bair Island and is located over 200 feet north of the site. The potentially historic building is located at 517 E. Bayshore Road, directly adjacent to the site. An analysis completed for the building in 2012 determined that the structure, which was built in 1967, does not qualify as a historic resource.

3.5.2 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?

3.5.2.1 *Project Impacts*

Impact CUL-1:	The project would not cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5. **(Less than Significant Impact)**

Generally, a resource is considered to be historically significant by the City of Redwood City if it is listed or meets the criteria for listing on the NRHP, CRHR, or qualifies under the Redwood City Historic Designation Criteria identified under Section 40.6 of the City's Municipal Code.

Based on the Historical Resources Assessment completed for the project site, the existing buildings on-site are not eligible for listing in the CRHR or the Redwood City historic resource inventory, and are not historical resources for CEQA, as explained in Section 3.5.1.2. Additionally, there are no historic resources within the project's immediate vicinity that could be affected by the construction of the proposed project. **(Less than Significant Impact)**

Impact CUL-2:	The project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. **(Less than Significant Impact)**

Based on an archaeological literature search completed for the site, there are no previously recorded cultural resources in the project area. However, as discussed in the General Plan EIR, there is a high likelihood that unrecorded Native American cultural resources exist in portions of the City. Implementation of the project would require site preparation, including excavation and grading activities, which could adversely impact previously undiscovered archaeological resources. Consistent with the General Plan EIR, as conditions of approval, the project would implement the following measures to reduce impacts to archaeological resources (if encountered) to a less than significant level:

Condition of Approval:

- General Plan EIR Mitigation Measure 4.5-1b: Prior to the issuance of grading permits, the project applicant is responsible for ensuring all construction crews undergo adequate training for the identification of federal or state-eligible cultural resources, and that the construction crews are aware of the potential for previously undiscovered archaeological resources, of the laws protecting these resources and associated penalties, and of the procedures to follow should they discover cultural resources during project-related work.

- General Plan EIR Mitigation Measure 4.5-1a: If deposits of prehistoric or historic archeological materials are encountered during project construction activities, all work within an appropriate buffer area (no less than 50 feet) around the discovery shall be stopped and a qualified archeologist meeting federal criteria under 36 CFR 61 shall be contacted to assess the deposit(s) and make recommendations.

  If the deposits are recommended to be non-significant by a qualified archeologist, avoidance is not necessary. If the deposits are determined to be potentially significant by the qualified archeologist, the resources shall be avoided. If avoidance is not feasible, project impacts shall be mitigated in accordance with the recommendations of the qualified archaeologist, in coordination with the City Planning, Housing, and Economic Development Department and CEQA Guidelines Section 15126.4 (b)(3)(C), which requires implementation of a data recovery plan.

  The data recovery plan shall be prepared and implemented by a qualified archaeologist. The data recovery plan shall include provisions for adequately recovering all scientifically consequential information from and about any discovered archeological materials and include recommendations for the treatment of these resources. In-place preservation of the archeological resource is the preferred manner of mitigating potential impacts, as it maintains the relationship between the resource and the archeological context. In-place preservation also reduces the potential for conflicts with the religious or cultural values of groups associated with the resource. Other mitigation options include, but are not limited to, the full or partial removal and curation of the resource. The data recovery plan shall be conducted prior to any additional earth-moving activities in the area of the resource. The recovery plan shall be submitted to the project applicant, the City Planning, Housing, and Economic Development Department, and the Northwest Information Center (NWIC). Once the recovery plan is reviewed and approved by the City Planning, Housing, and Economic Development Department and any appropriate resource recovery completed, project construction activity within the area of the find may resume. A data recovery plan shall not be required for resources that have been deemed by the NWIC as adequately recorded and recovered by studies already completed.[31]

With implementation of the above conditions of approval, the project would not result in significant impacts to archaeological resources because the project would require training of construction personnel regarding identifying and protecting archaeological resources and halting work if a

[31] Redwood City. *A New General Plan for Redwood City Draft Environmental Impact Report.* May 2010. Certified October 2010. Pages 4.5-23 and 4.5-24.

resource is encountered in order to assess the find and mitigate/avoid impacts if determined to be significant. **(Less than Significant Impact)**

Impact CUL-3:	The project would not disturb any human remains, including those interred outside of dedicated cemeteries. **(Less than Significant Impact)**

As discussed in the General Plan EIR, the potential to uncover Native American human remains exists in locations throughout the City. Although not anticipated, human remains may be encountered during site preparation and grading activities, resulting in a significant impact. Consistent with the General Plan EIR, as conditions of approval, the project would implement the following measure to reduce impacts to human remains (if encountered) to a less than significant level:

Condition of Approval:

1) General Plan EIR Mitigation Measure 4.5-3b: Prior to the issuance of grading permits, the project applicant is required to ensure all construction crews undergo a training session to inform them of the presence and nature of federal or state-eligible cultural resources and the potential for previously undiscovered human remains within the project area, of the laws protecting these resources and associated penalties, and of the procedures to follow should they discover cultural resources during project-related work.

2) General Plan EIR Mitigation Measure 4.5-3a: If human remains are encountered during ground disturbing activities, the project contractor and/or on-site supervisor shall stop work within 50 feet of the discovery. The project contractor shall immediately notify the Coroner upon the discovery of any human remains. At the same time, a qualified archaeologist, in coordination with the City Planning, Housing, and Economic Development Department, shall assess the situation and consult with the appropriate agencies. If the human remains are of Native American origin, the Coroner shall notify the NAHC within 24 hours of this identification. The NAHC will identify a Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper treatment or disposition, with proper dignity, of the remains and any associated grave goods. Upon completion of the assessment, the qualified archaeologist shall prepare a report documenting the background to the finds, and provide recommendations for the treatment of the human remains and any associated cultural materials, as appropriate and in coordination with the recommendations of the MLD. The report shall be submitted to the project applicant, the City Planning Department, and the NWIC. Once the report is reviewed and approved by the City Planning Department, and any appropriate treatment completed, project construction activity within the area of the find may resume. If the MLD does not make recommendations within 48 hours, the project applicant(s) shall reinter the remains in an area of the property secure from further disturbance. If the project applicant(s) does not accept the MLD's recommendations, the applicant(s) or the MLD may request mediation by the NAHC.[32]

[32] Redwood City. *A New General Plan for Redwood City Draft Environmental Impact Report.* May 2010. Certified October 2010. Page 4.5-26.

With implementation of the above conditions of approval, the project would not result in significant impacts to human remains because the project would require training of construction personnel regarding identifying and protecting the remains and halting work and notifying appropriate parties if human remains are encountered, and implementing recommendations to ensure proper treatment or disposition of the find. **(Less than Significant Impact)**

3.5.2.2 *Cumulative Impacts*

Impact CUL-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant cultural resources impact. **(Less than Significant Cumulative Impact)**

The geographic area for cultural resources is the City boundaries, as cultural resource impacts are typically localized and generally limited to the immediate area in which a given cultural resources is located.

Historic Resources

As discussed under Impact CUL-1, the project is not classified as a historic resource nor is it eligible to be listed on the CRHR, NRHP, or Redwood City Historical Resources Inventory. For this reason, the project would not contribute to a significant cumulative impact on historic resources. **(Less than Significant Cumulative Impact)**

Archaeological Resources

The cumulative projects, including the proposed project, would be required to implement General Plan EIR Mitigation Measures 4.5-1b and 4.5-1a to reduce impacts to archaeological resources (if encountered) to a less than significant level. As concluded in the General Plan EIR, future development under the General Plan, in conformance with existing policies and regulations and with the implementation of General Plan EIR Mitigation Measures 4.5-1b and 4.5-1a, would not result in significant cumulative impacts to archaeological resources.[33] **(Less than Significant Cumulative Impact)**

Human Remains

Build out of the General Plan, including the proposed project and cumulative projects, would be required to implement General Plan EIR Mitigation Measures 4.5-3b and 4.5-3a to reduce impacts to human remains (if encountered) to a less than significant level. As concluded in the General Plan EIR, future development under the General Plan, in conformance with existing policies and regulations and with the implementation of General Plan EIR Mitigation Measures 4.5-3b and 4.5-3a, would not result in significant cumulative impacts to human remains.[34] **(Less than Significant Cumulative Impact)**

[33] Redwood City. *A New General Plan for Redwood City Draft Environmental Impact Report.* May 2010. Certified October 2010. Page 6-12.
[34] Ibid.

3.6 ENERGY

3.6.1 Environmental Setting

3.6.1.1 *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.[35] Compliance with Title 24 is mandatory at the time new building permits are issued by city and county governments.[36]

[35] California Building Standards Commission. "California Building Standards Code." Accessed March 24, 2022. https://www.dgs.ca.gov/BSC/Codes#@ViewBag.JumpTo.
[36] California Energy Commission (CEC). "2019 Building Energy Efficiency Standards." Accessed March 24, 2022. https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2019-building-energy-efficiency.

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.[37]

Local

Redwood City General Plan

The General Plan includes policies for the purpose of avoiding or mitigating impacts from planned development in the City. The policies below are specific to energy and are applicable to the proposed project.

Policy	Description
Natural Resources	
NR-4.4	Pursue efforts to reduce energy consumption through appropriate energy conservation and efficiency measures throughout all segments of the community.
NR-4.5	Conserve energy by promoting efficient and cost-effective lighting that reduces glare and light pollution.
The Built Environment	
BE-1.5	Require that new and renovated buildings be designed to avoid styles, colors and materials that negatively impact the environment or the design character of the neighborhood, corridor, and center in which they are located.
BE-1.9	Carefully consider new shade, shadow, light, and glare effects from proposed development projects and comprehensive plans.
BE-3.3	Require new development to provide engaging, well-landscaped outdoor spaces that invite and support outdoor activities for residents, especially areas viewed or accessible by the public.

[37] California Air Resources Board. "The Advanced Clean Cars Program." Accessed March 24, 2022. https://www.arb.ca.gov/msprog/acc/acc.htm.

BE-22.2	Development must incorporate sustainability features, including features that minimize energy and water use, limit carbon emissions, provide opportunities for local power generation and food production, and provide areas for recreation.
PS-1.2	Minimize vehicle emissions by reducing automobile use and encouraging alternative means of transportation.

Redwood City Reach Codes

In September 2020, the City Council of Redwood City adopted All-Electric Reach Codes to reduce greenhouse gas emissions (GHGs) through new building construction requirements. Reach Codes are amendments to the Energy and Green Buildings Standards Codes, which aim to reduce GHGs by reducing reliance on natural gas and emphasizing building electrification. Building electrification is a key strategy in the City's Climate Action Plan. The Reach Codes require all new construction that does not qualify for an approved exemption to be built to utilize only electric appliances, and to include some level of electrical vehicle charging capability.

3.6.1.2 *Existing Conditions*

Total energy usage in California was approximately 7,802 trillion British thermal units (Btu) in the year 2019, the most recent year for which this data was available.[38] Out of the 50 states, California is ranked second in total energy consumption and 46th in energy consumption per capita. The breakdown by sector was approximately 19 percent (1,456 trillion Btu) for residential uses, 19 percent (1,468 trillion Btu) for commercial uses, 23 percent (1,805 trillion Btu) for industrial uses, and 39 percent (3,073 trillion Btu) for transportation.[39] This energy is primarily supplied in the form of natural gas, petroleum, nuclear electric power, and hydroelectric power.

Electricity

Electricity in San Mateo County in 2020 was consumed primarily by the non-residential sector (60 percent), with the residential sector consuming 40 percent. In 2020, a total of approximately 4,167 GWh of electricity was consumed in San Mateo County.[40]

Peninsula Clean Energy (PCE) is a public and locally controlled electricity provider for the County of San Mateo. Electricity provided by PCE is delivered through PG&E transmission lines. Commercial and residential customers in San Mateo County are included in the PCE service area and can choose to have 50 to 100 percent of their electricity supplied from carbon-free and renewable sources. Customers are automatically enrolled in the ECOplus plan, which generates its electricity from 100 percent carbon-free sources, with at least 50 percent from renewable sources. Customers

[38] United States Energy Information Administration. "State Profile and Energy Estimates, 2019." Accessed March 24, 2022. https://www.eia.gov/state/?sid=CA#tabs-2.
[39] United States Energy Information Administration. "State Profile and Energy Estimates, 2019." Accessed March 24, 2022. https://www.eia.gov/state/?sid=CA#tabs-2.
[40] California Energy Commission. Energy Consumption Data Management System. "Electricity Consumption by County." Accessed March 24, 2022. http://ecdms.energy.ca.gov/elecbycounty.aspx.

have the option to enroll in the ECO100 plan, which generates its electricity from 100 percent carbon-free, renewable sources. [41]

Natural Gas

PG&E provides natural gas services within San Mateo County. In 2020, approximately two percent of California's natural gas supply came from in-state production, while the remaining supply was imported from other western states and Canada.[42] In 2019 residential and commercial customers in California used 33 percent of the state's natural gas, power plants used 26 percent, the industrial sector used 35 percent, and other uses used six percent.[43] Transportation accounted for one percent of natural gas use in California.

In 2019, San Mateo County used approximately nine percent of the state's total consumption of natural gas.[44]

Fuel for Motor Vehicles

In 2019, 15.4 billion gallons of gasoline were sold in California.[45] 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 2020.[46] 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 March 2020 to require all cars and light duty trucks achieve an overall industry average fuel economy of 40.4 mpg by model year 2026. [47,48]

3.6.2 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?

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[41] Sources: 1) Peninsula Clean Energy. "Frequently Asked Questions." Accessed March 24, 2022. https://www.peninsulacleanenergy.com/faq/. 2) Peninsula Clean Energy. "Energy Choices." Accessed March 24, 2022. https://www.peninsulacleanenergy.com/faq/.

[42] California Gas and Electric Utilities. 2020 *California Gas Report.* Accessed March 24, 2022. https://www.socalgas.com/sites/default/files/2020-10/2020_California_Gas_Report_Joint_Utility_Biennial_Comprehensive_Filing.pdf.

[43] United States Energy Information Administration. "State Profile and Energy Estimates, 2019." Accessed March 24, 2022. https://www.eia.gov/state/?sid=CA#tabs-2.

[44] California Energy Commission. "Natural Gas Consumption by County." Accessed March 24, 2022. http://ecdms.energy.ca.gov/gasbycounty.aspx.

[45] California Department of Tax and Fee Administration. "Net Taxable Gasoline Gallons." Accessed March 24, 2022. https://www.cdtfa.ca.gov/dataportal/dataset.htm?url=VehicleTaxableFuelDist.

[46] 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

[47] United States Department of Energy. *Energy Independence & Security Act of 2007.* Accessed March 24, 2022. http://www.afdc.energy.gov/laws/eisa.

[48] Public Law 110–140—December 19, 2007. *Energy Independence & Security Act of 2007.* Accessed March 24, 2022. http://www.gpo.gov/fdsys/pkg/PLAW-110publ140/pdf/PLAW-110publ140.pdf.

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?

3.6.2.1 *Project Impacts*

Impact EN-1:	The project would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation. **(Less than Significant Impact)**

Construction

Construction of the project would require energy for the manufacture and transportation of building materials, site preparation and grading, and the actual construction of the buildings and infrastructure. As discussed in Section 3.3 Air Quality, the project would include best management practices to minimize the idling of construction equipment. In addition, as discussed in Section 3.19 Utilities and Service Systems, the project is required to participate in the City's Construction & Demolition Debris Program which requires 100 percent of demolition inert solids be diverted from the landfill and a minimum of 65 percent of all other construction and demolition debris from new construction, roofing, and alternations/additions be diverted from the landfill. Diversion saves energy by reusing and recycling materials for other uses (instead of landfilling materials and using additional non-renewable resources). For these reasons, the construction of the project would not use energy in a wasteful manner. **(Less than Significant Impact)**

Operation

Operation of the project would consume energy for multiple purposes including, but not limited to, building heating and cooling, lighting, appliances, and electronics. Energy would also be consumed during each vehicle trip generated by residents and visitors.

The proposed project would provide 19 bicycle parking spaces for residents. The inclusion of bicycle parking would incentivize the use of alternative methods of transportation to and from the site.

The proposed project would be required to be built in accordance to CALGreen requirements, which includes insulation and design provisions to minimize wasteful energy consumption. The project's estimated energy demand is summarized in Table 3.6-1 below. The project would not use energy in a wasteful manner, as it would be designed to meet minimum LEED Certification standards by incorporating natural ventilation systems, water conservation measures, and energy conservation measures.

Table 3.6-1: Annual Project Energy Demand			
	Electricity (kWh)	**Natural Gas** (kBTU)	**Gasoline*** (gallons)
Project	419,706	0**	34,762.88
Note: * Gasoline demand was calculated by dividing the project's estimated VMT by 35 mpg. **New natural gas hook ups are prohibited in Redwood City. Source: Illingworth & Rodkin, Inc. *505 East Bayshore Road Air Quality & Greenhouse Gas Assessment.* March 23, 2022. CalEEMod Modeling Output.			

As discussed previously, in September 2020 the City adopted Reach Codes that require all new construction that does not qualify for an approved exemption to be built to utilize only electric appliances, and to include some level of electrical vehicle charging capability. Natural gas hook ups are prohibited in Redwood City and therefore the project would not consume natural gas.

The main electricity provider in the City of Redwood is Peninsula Clean Energy (PCE). PCE provides electricity to all of San Mateo County, with 50 percent of the electricity coming from renewable sources and 90 percent being carbon free electricity. PCE provides 100 percent GHG free electricity and aims to provide electricity sourced from 100 percent renewables by 2025.

For the reasons described above, the project would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project operation. **(Less than Significant Impact)**

Impact EN-2:	The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. **(Less than Significant Impact)**

The project would be consistent with the regulations described in Section 3.6.1.1 (including General Plan policies) by:

- Designing buildings to meet minimum LEED Certification standards by incorporating natural ventilation systems, water conservation measures, and energy conservation measures (including LED light fixtures and renewable building materials),
- Implementing TDM measures to promote walking, bicycling, and transit use,
- Complying with Title 24 and CALGreen,
- Participating in the City's Construction & Demolition Debris Program,
- Providing on-site recycling facilities, and
- Adhering to Reach Codes

Therefore, the project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. **(Less than Significant Impact)**

Impact EN-3:	The project would not result in a substantial increase in demand upon energy resources in relation to projected supplies. **(Less than Significant Impact)**

The existing site's energy use is summarized in Table 3.6-2 below. Implementation of the project would increase electricity use by approximately 295,949 kWh per year and gas consumption by approximately 30,685.88 gallons per year while reducing natural gas usage by approximately 46,338.2 kBTU per year.

Table 3.6-2: Existing Energy Demand

	Electricity (kWh)	**Natural Gas** (kBTU)	**Gasoline*** (gallons)
Project	123,757	46,338.2	4,077

Note: * Gasoline demand was calculated by dividing the VMT of the current land use by 35 mpg.

Source: Illingworth & Rodkin, Inc. *505 East Bayshore Road Air Quality & Greenhouse Gas Assessment.* March 23, 2022. CalEEMod Modeling Output.

The project would be built to the most recent CALGreen requirements and Title 24 energy efficient standards, which would improve the efficiency of the overall project. Due to population increases, it is estimated that future electricity demand in California will increase. Efficiency and production capabilities would help meet increased electricity demand in the future, such as improving energy efficiency in existing and future buildings, establishing energy efficiency targets, inclusion of microgrids and zero-net energy buildings, and integrating renewable technologies.[49] As a result, the project's increase in electricity use would not result in a significant increase in demand on electrical energy resources in relation to projected supplies statewide.

The project would reduce natural gas consumption, and therefore the proposed project would not result in a substantial increase in natural gas demand relative to projected supply.

Project trips would increase gasoline use by approximately 30,685.88 gallons per year compared to existing conditions. This increase is small when compared to the 15.4 billion gallons of gasoline consumed in California in 2019. Therefore, implementation of the project would not result in a substantial increase on transportation-related energy uses. **(Less Than Significant Impact)**

[49] California Energy Commission. "2021 Integrated Energy Policy Report." Accessed March 23, 2022. https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2021-integrated-energy-policy-report

3.6.2.2 *Cumulative Impacts*

Impact EN-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant energy impact. **(Less than Significant Cumulative Impact)**

Energy is a cumulative resource. The geographic area for cumulative energy impacts is the State of California. Past, present, and future development projects contribute to the state's energy impacts. If the project is determined to have a significant energy impact, it is concluded that the impact is a cumulative impact. As discussed under Impact EN-1, EN-2, and EN-3, the project would not result in significant energy impacts. Therefore, the project would not have a cumulatively considerable contribution to a significant cumulative energy impact. **(Less than Significant Cumulative Impact)**

3.7 GEOLOGY AND SOILS

The following discussion is based on a preliminary geotechnical investigation completed for the site by Langan in September 2018. A copy of this report is included in Appendix E.

3.7.1 Environmental Setting

3.7.1.1 *Regulatory Framework*

State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed following the 1971 San Fernando earthquake. The act regulates development in California near known active faults due to hazards associated with surface fault ruptures. Alquist-Priolo maps are distributed to affected cities, counties, and state agencies for their use in planning and controlling new construction. Areas within an Alquist-Priolo Earthquake Fault Zone require special studies to evaluate the potential for surface rupture to ensure that no structures intended for human occupancy are constructed across an active fault.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act (SHMA) was passed in 1990 following the 1989 Loma Prieta earthquake. The SHMA directs the California Geological Survey (CGS) to identify and map areas prone to liquefaction, earthquake-induced landslides, and amplified ground shaking. CGS has completed seismic hazard mapping for the portions of California most susceptible to liquefaction, landslides, and ground shaking, including the central San Francisco Bay Area. The SHMA requires that agencies only approve projects in seismic hazard zones following site-specific geotechnical investigations to determine if the seismic hazard is present and identify measures to reduce earthquake-related hazards.

California Building Standards Code

The California Buildings Standards Code (CBC) prescribes standards for constructing safe buildings. The CBC contains provisions for earthquake safety based on factors including occupancy type, soil and rock profile, ground strength, and distance to seismic sources. The CBC requires that a site-specific geotechnical investigation report be prepared for most development projects to evaluate seismic and geologic conditions such as surface fault ruptures, ground shaking, liquefaction, differential settlement, lateral spreading, expansive soils, and slope stability. The CBC is updated every three years.

California Division of Occupational Safety and Health Regulations

Excavation, shoring, and trenching activities during construction are subject to occupational safety standards for stabilization by the California Department of Industrial Relations, Division of Occupational Safety and Health (Cal/OSHA) under Title 8 of the California Code of Regulations and Excavation Rules. These regulations minimize the potential for instability and collapse that could injure construction workers on the site.

Public Resources Code Section 5097.5

Paleontological resources are the fossilized remains of organisms from prehistoric environments found in geologic strata. They range from mammoth and dinosaur bones to impressions of ancient animals and plants, trace remains, and microfossils. These materials are valued for the information they yield about the history of the earth and its past ecological settings. California Public Resources Code Section 5097.5 specifies that unauthorized removal of a paleontological resource is a misdemeanor. Under the CEQA Guidelines, a project would have a significant impact on paleontological resources if it would disturb or destroy a unique paleontological resource or site or unique geologic feature.

Local

Redwood City General Plan

The General Plan includes policies for the purpose of avoiding or mitigating impacts from planned development in the City. The policies below are specific to geology and soils and are applicable to the proposed project.

Policy	Description
Public Safety	
PS-6.1:	Identify structural types, land uses, and sites that are highly sensitive to earthquake activity and other geological hazards, and seek to abate or modify them to achieve acceptable levels of risk.
PS-6.3:	Work to ensure that structures and the public in Redwood City are exposed to reduced risks from seismic and geological events.

3.7.1.2 *Existing Conditions*

Regional Geology

Redwood City is located within the Coast Ranges geomorphic province formed by the Franciscan, Merced, and Colma assemblages, which are principally composed of marine sedimentary and volcanic rocks, as well as deposits of sandstone, claystone, siltstone, gravel, sand, silt, and clay.

Fault Rupture and Seismic Hazards

Redwood City is located in the seismically active San Francisco Bay Area. Due to its location near the boundary between the North American and Pacific tectonic plates, Redwood City is exposed to geologic and seismic hazards such as surface ruptures, strong seismic ground shaking, and seismic-related ground failure, including liquefaction, landsliding, and related phenomenon.

Mapping completed under the Alquist-Priolo Earthquake Fault Zoning Act indicates that there are no active earthquake fault zones in Redwood City. However, the City is within the effective area of the major San Andreas Fault, approximately 2,000 feet southwest of the city boundary, as well as the Calaveras, Hayward, Monta Vista, and San Gregorio-Seal Cove faults. Distances between the proposed project site and nearby faults is summarized in Table 3.7-1 below.

Table 3.7-1: Nearby Faults[50]	
Fault	**Distance from Site**
Monte Vista-Shannon	7 miles south
N. San Andreas – Peninsula	7 miles west
N. San Andreas (1906 event)	7 miles west
San Gregorio Connected	21 miles west
Total Hayward	23 miles northeast
Total Hayward – Rodgers Creek	23 miles northeast
Total Calaveras	33 miles east
N. San Andreas – Santa Cruz	41 miles southeast
Mount Diablo Thrust	43 miles northeast
N. San Andreas – North Coast	44 miles northeast
Green Valley Connected	50 miles northeast

No known active or potentially active faults subject to the Alquist-Priolo Earthquake Fault Zoning Act intersect the project site.

Seismic-Related Ground Failure

Liquefaction

Liquefaction is the result of seismic activity and is characterized as the transformation of loose, water-saturated soils from a solid state to a liquid state after ground shaking. There are many variables that contribute to liquefaction, including the age of the soil, soil type, soil cohesion, soil density, and ground water level. Flow failure, lateral spreading, differential settlement, loss of bearing strength, ground fissures, lurch cracking, and sand boils are caused by liquefaction. The project site is in a Liquefaction Hazard Zone.[51]

Landslide and Lateral Spreading

Given the relatively level topography of the site, the likelihood of landslide is remote. Lateral spreading is horizontal/lateral ground movement of relatively flat-lying soil deposits towards a free face such as an excavation, channel, or open body of water. The northern portion of the site is adjacent to an unnamed tidal slough and Smith Slough. The slough slopes are considered a free face and therefore the site has potential for lateral spreading.

[50] Langan. Preliminary Geotechnical Evaluation 505 East Bayshore Road. September 12, 2018.
[51] California Geological Survey. *California Earthquake Hazards Zone Application*. Accessed January 20, 2022. https://maps.conservation.ca.gov/cgs/EQZApp/app/

Soils

A Preliminary Geotechnical Evaluation completed by Langan in September 2018 anticipated that the site's subsurface conditions generally consist of approximately three to 15 feet of fill consisting of medium stiff to very stiff clay with occasional loose to medium dense sand and gravel. Underlying the fill is approximately five to ten feet of soft compressible marine clay locally referred to as Bay Mud, which may be slightly overconsolidated.[52] The Bay Mud is underlain by medium stiff to very stiff clay with varying amount of sand and loose to very dense sand and gravel layers with varying type and amount of fines. Fill material that is present near the ground surface is expected to be moderately compressible and potentially have moderate to high expansion potential. Corrosivity analysis performed at nearby sites classify the fill as corrosive and Bay Mud as severely corrosive.

Clay and associated materials can result in weak, compressible, or expansive soils. These soils are classified as expansive soils. Expansion and contraction in volume can occur when expansive soils undergo alternating cycles of wetting (swelling) and drying (shrinking). During these cycles, the volume of the soil changes markedly. As a consequence of such volume changes, structural damage to buildings and infrastructure may occur if the potentially expansive soils were not considered in project design and during construction.

Groundwater

Groundwater was encountered between depths of three and 9.5 feet below ground surface (bgs) during the CPTs.[53] The groundwater level is anticipated to vary a few feet annually depending on seasonal conditions.

Paleontology

There are no known fossil localities within the City.[54] Fossils are found in sedimentary rock layers.[55] The closest recorded paleontological sites are located approximately two miles south of the City in the City of Atherton.[56]

3.7.2 Impact Discussion

For the purpose of determining the significance of the project's impact on geology and soils, would the project:

1) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
    - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on

[52] An overconsolidated clay has experienced a pressure greater than its current load.
[53] Langan Engineering and Environmental Services, Inc. Preliminary Geotechnical Evaluation 505 East Bayshore Road. September 12, 2018.
[54] Redwood City. *A New General Plan for Redwood City Draft Environmental Impact Report.* May 2010. Certified October 2010. Page 4.5-10.
[55] Ibid. Page 4.5-25.
[56] Ibid.

other substantial evidence of a known fault (refer to Division of Mines and Geology Special Publication 42)?
    - Strong seismic ground shaking?
    - Seismic-related ground failure, including liquefaction?
    - Landslides?
2) Result in substantial soil erosion or the loss of topsoil?
3) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?
4) Be located on expansive soil, as defined in the current California Building Code, creating substantial direct or indirect risks to life or property?
5) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?
6) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?

3.7.2.1 *Project Impacts*

Impact GEO-1:	The project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault; strong seismic ground shaking; seismic-related ground failure, including liquefaction; or landslides**. (Less than Significant Impact)**

Fault Rupture

As discussed under Section 3.7.1.2, no known active or potentially active faults intersect the project site, and the site is not within an Earthquake Fault Zone as defined by the State of California Alquist-Priolo Earthquake Fault Zoning Act. In seismically active areas, a remote possibility exists for future faulting in areas where no faults previously existed. However, the Preliminary Geotechnical Evaluation concluded that the risk of surface faulting and consequent secondary ground failure from previously unknown faults is very low. **(Less than Significant Impact)**

Ground Shaking and Ground Failure

The Preliminary Geotechnical Evaluation found that layers of loose to medium dense sand with varying silt and clay content are likely present below the groundwater level at the project site. The combined thickness of these layers of loose to medium dense sand are likely to range from about a few inches to up to ten feet. Loose to medium dense sand, where present, could liquefy during a major earthquake on a nearby active fault.

Ground shaking from future earthquakes caused by any of the nearby faults identified in Section 3.7.1.2 would occur at the project site. Ground shaking intensity depends upon the characteristics of

the generating fault, distance to the earthquake epicenter, magnitude and duration of the earthquake, and specific subsurface conditions. The project site would be subject to strong to violent seismic ground shaking and seismic-related ground failure in the event of a large earthquake. To avoid and/or minimize potential damage from seismic shaking, the proposed project would be built using standard engineering and seismic safety design techniques. Consistent with SHMA and CBC requirements, the following condition shall be implemented to ensure the proposed development is designed to address seismic hazards.

Condition of Approval:

To avoid or minimize potential damage from seismic shaking, the project shall be constructed using standard engineering and seismic safety design techniques. Building design and construction at the site shall be completed in conformance with the recommendations of an approved geotechnical investigation. The investigation should be consistent with the guidelines published by the State of California (CGS Special Publication 117A) and the Southern California Earthquake Center (SCEC, 1999). A recommended depth of 50 feet should be explored and evaluated in the investigation. The report shall be reviewed and approved by the City of Redwood City's Department of Public Works as part of the building permit review and issuance process. The buildings shall meet the requirements of applicable Building and Fire Codes as adopted or updated by the City. The project shall be designed to withstand soil hazards identified on the site and the project shall be designed to reduce the risk to life or property.

The project, in conformance with the SHMA and CBC, would not directly or indirectly cause potential substantial seismic or seismic-related impacts. **(Less than Significant Impact)**

Impact GEO-2:	The project would not result in substantial soil erosion or the loss of topsoil. **(Less than Significant Impact)**

Construction of the project (including demolition and soil excavation activities) would expose soils and could result in wind or water-related erosion and loss of topsoil. Compliance with erosion control measures, as required by the National Pollutant Discharge Elimination System (NPDES) program described in Section 3.10 Hydrology and Water Quality, would reduce the potential for substantial erosion or loss of topsoil to a less than significant level. **(Less than Significant Impact)**

Impact GEO-3:	The project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. **(Less than Significant Impact)**

As discussed in Section 3.7.1.2, the potential for landslide at the site is low. The site has potential for lateral spreading due to the free face of the unnamed tidal slough to the north of the site.

Additionally, the project site is in a Liquefaction Hazard Zone.[57] Since the soils on-site have high expansion potential, the proposed project would be required to use standard engineering and seismic safety design techniques during project construction.

As discussed under Impact GEO-1, a geotechnical investigation report addressing seismic hazards, including the potential for liquefaction and lateral spreading, that discloses appropriate techniques to minimize risks to people and structures must be submitted to, reviewed, and approved by the City of Redwood City as part of the building permit review and issuance process. As a result, the proposed project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. The incorporation of the condition of approval discussed under Impact GEO-1 and compliance with the measures mandated by the SHMA and CBC would render site instability during a seismic event less than significant. **(Less than Significant Impact)**

Impact GEO-4:	The project would not be located on expansive soil, as defined in the current California Building Code, creating substantial direct or indirect risks to life or property. **(Less than Significant Impact)**

There are expansive soils on-site. The project would be required to adhere to the SHMA and CBC, which address expansive soil hazards, and would therefore ensure that the risk or life or property due to the presence of expansive soils is minimal. A design-level geotechnical investigation in compliance with the requirements of the SHMA and CBC would be prepared for the project. The project must implement the recommendations of the design-level geotechnical investigation, which would reduce impacts to expansive soils to a less than significant level. **(Less than Significant Impact)**

Impact GEO-5:	The project would not have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater. **(No Impact)**

The proposed development would connect to the existing wastewater facilities and would not require the installation of septic tanks or alternative disposal systems. **(No Impact)**

Impact GEO-6:	The project would not directly or indirectly destroy a unique paleontological resource or site or unique geological feature. **(No Impact)**

There are no known unique paleontological resources or unique geological features within the City. Based on soil sampling completed at the site, there are no sedimentary rock layers present or unique geological features. Construction of the proposed development therefore would not directly or indirectly destroy unique paleontological resources or unique geological features. **(No Impact)**

[57] California Geological Survey. *California Earthquake Hazards Zone Application*. Accessed January 20, 2022. https://maps.conservation.ca.gov/cgs/EQZApp/app/

3.7.2.2 *Cumulative Impacts*

Impact GEO-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant geology and soils impact. **(Less than Significant Cumulative Impact)**

The geographic area for cumulative geology and soils impacts is generally the project site and immediate area. The existing geology and soils conditions would not be exacerbated by the project such that it would impact or worsen on- or off-site geology and soil conditions. For this reason, the project would not have a cumulatively considerable contribution to a cumulatively significant geology and soils impact. **(Less than Significant Cumulative Impact)**

3.8 GREENHOUSE GAS EMISSIONS

3.8.1 Environmental Setting

3.8.1.1 *Background Information*

Gases that trap heat in the atmosphere, 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.

3.8.1.2 *Regulatory Framework*

State

Assembly Bill 32

Under the California Global Warming Solutions Act, 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

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 2040. Plan Bay Area 2040 establishes a course for reducing per capita GHG emissions through the promotion of compact, high-density, mixed-use neighborhoods near transit, particularly within identified Priority Development Areas (PDAs).

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

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. The jurisdictions in the San Francisco Bay Area Air Basin utilize the thresholds and methodology for assessing GHG impacts developed by BAAQMD within the CEQA Air Quality Guidelines. The guidelines include information on legal requirements, BAAQMD rules, methods of analyzing impacts, and recommended mitigation measures.

Redwood City General Plan

The General Plan includes policies for the purpose of avoiding or mitigating impacts from planned development in the City. The policies below are specific to GHGs and are applicable to the proposed project.

Policy	Description
Public Safety	
PS-5.3	Reduce greenhouse gas emissions and adapt to climate change with efforts in the following areas. Major mitigation and adaptation strategies will include: • *Energy*: Incentivize renewable energy installation, facilitate green technology and business, and reduce community-wide energy consumption. • *Land Use*: Encourage investment and development in Downtown, transit-oriented development, compact development, infill development, and a mix of uses. Discourage development on land vulnerable to flooding from sea level rise where potential impacts cannot be adequately addressed. • *Transportation*: Enhance bicycling and walking infrastructure, and support public transit, including Caltrain, rapid rail, streetcars, and public bus service. • *Buildings*: Educate developers regarding the City's Green Building Ordinance, and develop an assessment of green building techniques as a formal stage of City design review. Consider strategies to encourage energy and water conservation retrofits in existing buildings. Adaptation strategies will also include increased water efficiency in buildings. • *Waste*: Increase composting, recycling, and efforts to reduce waste generation, focusing especially on large commercial and industrial waste producers. • *Ecology*: Plant trees and more vegetation, and endeavor to preserve open space. Major climate adaptation strategies will include native and drought-resistant planting and preservation of open space buffers near floodplains that may be affected by sea level rise. • *Government Operations*: Develop green procurement plans and seek energy savings in operations and maintenance of City facilities. • *Communication and Programs*: Develop or support energy- or climate change-themed publications and workshops, facilitate energy audits for residents, and establish partnerships to reduce greenhouse gas emissions.

Redwood City Climate Action Plan

The City Council adopted the current Climate Action Plan (CAP) on November 16, 2020. The CAP was developed as the community's roadmap for addressing climate change and increasing resiliency in adapting to the impacts of climate change. In California, aggressive climate change goals have been set by the State to curb GHG emissions, with local governments implementing much of the policy. The CAP establishes the goal of reducing carbon emissions 50 percent below 2005 levels by 2030, an interim step toward the ultimate goal of achieving carbon neutrality well before 2045.

The CAP identifies 33 quantifiable emissions reduction measures in four sectors for Redwood City to reduce GHG emissions to achieve the 2030 and 2045 targets:

- Transportation & Land Use. Strategies encourage public transit use, changing commuting habits, and promoting transit-oriented land use planning to help reduce GHG emissions by reducing the number of miles driven by single passenger vehicles, and increasing housing near transit.

- Energy & Water. Strategies address energy that is used in community and public facilities, as well as in water treatment and transportation and provide opportunities to reduce energy use, shift from natural gas to electricity, and reduce water consumption.

- Solid Waste. This includes emissions from solid waste generation and disposal. The primary goal is to reduce emissions by encouraging the community to reduce waste. The secondary goal is to divert it from the landfill through recycling and composting.

- Food & Consumption. This includes the goods and services bought from outside San Mateo County. This strategy explores how to reduce food waste, shop local, and curb unnecessary air travel.

3.8.1.3 *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. The principal GHGs contributing to global warming include CO_2, methane, nitrous oxide, and fluorinated compounds. Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the transportation, manufacturing, utility, and agricultural sectors.

The project site currently generates GHG emissions from building and facility operations and vehicles traveling to and from the project site.

3.8.2 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?

A project that is in compliance with the City's Climate Action Plan (a qualified GHG Reduction Strategy) is considered to have a less than significant GHG impact regardless of its emissions. However, the project proposes a General Plan Amendment from *RC – Commercial Regional* to *Mixed Use – Waterfront Neighborhood*. As a result, the development allowed by the project was not specifically accounted for in the General Plan, meaning the Climate Action Plan does not include the

project's emissions in its calculations of future citywide emissions. The project, therefore, cannot tier off the City's Climate Action Plan for CEQA purposes.

On April 20, 2022, the BAAQMD Board of Directors held a public meeting and adopted updated CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans. These thresholds are presented below. GHG impacts from the project would be considered to have a less than significant impact if the project is consistent with the updated BAAQMD thresholds.

BAAQMD GHG Thresholds for Land Use Projects (Must Include A or B)

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 vehicle miles traveled (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 in CEQA:
        i. Residential projects: 15 percent below the existing VMT per capita
        ii. Office projects: 15 percent below the existing VMT per employee
        iii. Retail projects: no net increase in existing VMT
    b. Achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.

B. Projects must be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

Because the project includes a General Plan Amendment, it cannot rely on a GHG Reduction Strategy as outlined in Option B of the BAAQMD thresholds. As a result, the project's consistency with the requirements of Option A of the BAAQMD thresholds will be used to determine the significance of the project's operational GHG emissions.

3.8.2.1 *Project Impacts*

Impact GHG-1:	The project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. **(Less than Significant Impact)**

Construction Emissions

GHG emissions associated with construction were computed to be 319 MT of CO2e for the total construction period. These are the emissions from on-site operation of construction equipment, vendor and hauling truck trips, and worker trips. Neither the City nor BAAQMD has an adopted

threshold of significance for construction-related GHG emissions, though BAAQMD recommends quantifying emissions and disclosing that GHG emissions would occur during construction. BAAQMD also encourages the incorporation of best management practices to reduce GHG emissions during construction where feasible and applicable. **(Less than Significant Impact)**

Operational GHG Emissions

As described previously, BAAQMD adopted updated GHG thresholds in April 2022. Operational emissions from the project would be considered less than significant impact if the project is consistent with the updated BAAQMD thresholds. An analysis of the project's consistency with these thresholds is included in Table 3.8-1 below.

Table 3.8-1: Consistency with BAAQMD Thresholds for Land Use Projects

BAAQMD Threshold	Project Consistency
Buildings	
a. The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).	**Consistent.** The project would not include natural gas appliances or natural gas plumbing.
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.	**Consistent.** As described in further detail in Section 3.6 Energy, the project would not result in any wasteful, inefficient, or unnecessary energy usage.
Transportation	
a. Achieve a reduction in project-generated vehicle miles traveled (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 in CEQA: i. Residential projects: 15 percent below the existing VMT per capita ii. Office projects: 15 percent below the existing VMT per employee iii. Retail projects: no net increase in existing VMT	**Consistent.** As described in further detail in Section 3.17 Transportation, project-generated VMT would be 15 percent below the existing VMT per capita with implementation of Transportation Demand Management (TDM) measures.
b. Achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.	**Consistent.** The project would include at least one electric vehicle parking space for each residential unit, which complies with the requirements of CALGreen Tier 2.

Because the project would be consistent with the requirements in BAAQMD's updated GHG thresholds for land use projects, the project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. **(Less Than Significant Impact)**

Impact GHG-2:	The project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. **(Less than Significant Impact)**

State Plans and Policies

As described above, the project would be consistent with BAAQMD's updated GHG thresholds for land use projects which are intended to ensure projects do not interfere with the State's ability to achieve the 2030 GHG emissions reduction targets established by SB 32 and Executive Order B-30-15. Therefore, the project would be consistent with state and local plans and policies pertaining to GHG emission reductions. **(Less than Significant Impact)**

Redwood City General Plan

Although the project proposes a General Plan Amendment to change the land use designation on the site, the project would be consistent with applicable General Plan policies, including PS-5.3, for reducing GHG emissions. The project would reduce GHG emissions by being designed to meet all requirements within the California Green Building Standards Code and the Title 24 Building Code, which requires high-efficiency water fixtures, water-efficient irrigation systems, and compliance with current energy efficacy standards. The project would avoid wasteful and inefficient use of electricity and would incorporate infrastructure for residential electric vehicle charger installation, as required by the latest California Green Building Standards Code and the City's Reach Codes.

The project would also reduce GHG emissions by participating in the City's Construction & Demolition Debris Program to reduce the amount of material being landfilled and include on-site recycling facilities to minimize and divert materials from being landfilled. **(Less than Significant Impact)**

Redwood City Climate Action Plan

Although the project proposes a General Plan Amendment to change the land use designation on the site, the project is consistent with the City's Climate Action Plan (specifically recommendations EW-2, TL-2, and WC.1 listed in Section 3.8.1) by participating in the City's Construction & Demolition Debris Program, providing on-site recycling services, and incorporating pedestrian and bicycle facilities on-site. For these reasons, the project is consistent with the City's Climate Action Plan. **(Less than Significant Impact)**

3.8.2.2 *Cumulative Impacts*

Impact GHG-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant GHG emissions impact. **(Less than Significant Cumulative Impact)**

As discussed in Section 3.8.1, GHG emissions have a broader, global impact; therefore, the project's cumulative GHG impacts are discussed above. Because the project would be consistent with BAAQMD's updated GHG thresholds for land use projects which are intended to ensure projects do not interfere with the State's ability to achieve the 2030 GHG emissions reduction targets established by SB 32 and Executive Order B-30-15, the project's emissions are less than cumulatively considerable. **(Less than Significant Cumulative Impact)**

3.9 HAZARDS AND HAZARDOUS MATERIALS

The following discussion is based on a Phase I Environmental Site Assessment (ESA) completed for the site by Langan in July 2019 and a Phase II ESA completed by Langan in May 2019. A copy of these reports are included in Appendix F and G, respectively.

3.9.1 Environmental Setting

3.9.1.1 *Regulatory Framework*

Federal and State

The storage, use, generation, transport, and disposal of hazardous materials and waste are highly regulated under federal and state laws. Federal regulations and policies related to development include the Comprehensive Environmental Response, Compensation, and Liability Act, commonly known as Superfund, and the Resource Conservation and Recovery Act (RCRA). In California, the 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.

Cortese List

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

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 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 San Mateo County Health Department, Environmental Health Division reviews CalARP risk management plans as the CUPA.

Asbestos-Containing Materials and Lead-Based Paint

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 phased out use of friable asbestos products between 1973 and 1978. National Emission Standards for Hazardous Air Pollutants guidelines require that potentially friable ACMs be removed prior to building demolition or remodeling that may disturb the ACMs.

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 Cal/OSHA Lead in Construction Standard, Title 8, California Code of Regulations 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.

Polychlorinated Biphenyls

Polychlorinated biphenyls (PCBs) are chlorinated organic compounds that were produced in the United States between 1955 to 1978. Due to their non-flammability, chemical stability, high boiling point, and electrical insulating properties, PCBs were 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 EPA banned the production and any new uses of PCBs due to concerns about their potential harmful health effects and their persistence in the environment. The one remaining approved use is for existing, totally enclosed applications (i.e., the use in electrical transformers).

Although production has been banned since 1979, PCBs can still be released to the environment today through various pathways, including building materials that contain legacy caulks and sealants or other potential PCBs-containing material potentially released during demolition or renovation. With the adoption of the reissued San Francisco Bay Region Municipal Regional Stormwater NPDES Permit (MRP) by the San Francisco Bay Regional Water Quality Control Board on November 19, 2015, the implementation of stormwater control programs for PCBs has become a high priority compliance issue for permittees throughout the Bay Area. Provision C.12.f. of the MRP requires that permittees develop an assessment protocol methodology for managing materials with PCBs in applicable structures that are planned for demolition, so that PCBs do not enter municipal storm drain systems. Municipalities throughout the Bay Area are currently modifying demolition permit processes and implementing PCB screening protocols to comply with Provision C.12.f. (see Section 3.10 Hydrology and Water Quality).

Federal Aviation Administration Regulations

Federal Aviation Regulations, Part 77 Objects Affecting Navigable Airspace 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 ground.

Regional and Local

Comprehensive Airport Land Use Compatibility Plan for the Environs of San Carlos Airport

The Comprehensive Airport Land Use Compatibility Plan (ALUCP) was prepared by the City/County Association of Governments of San Mateo County (C/CAG) in its designated role as the Airport Land Use Commission (ALUC) for San Mateo County. The ALUCP encourages compatible land uses in the vicinity surrounding an airport by providing for the orderly growth of each public airport and the area surrounding the airport while safeguarding the welfare of the inhabitants within the vicinity of the airport and the public in general.[58]

The ALUC maintains and implements the ALUCP for San Carlos Airport. The ALUCP establishes two influence zones around San Carlos Airport. These zones are intended to prevent development that is incompatible with airport operations and include specific regulations, such as height restrictions based on proximity to the airport and flight patterns. Per the ALUCP, all of Redwood City and portions of several nearby communities are included within San Carlos Airport Influence Area A. The ALUCP requires real estate transaction disclosures for all properties within Influence Area A.[59] Areas within 9,000 feet of San Carlos Airport, including the northern and eastern portions of the City, are in Airport Influence Area B. Any local land use policy actions, such as a General Plan Amendment or zoning amendment, within Airport Influence Area B requires formal review by the ALUC to ensure that the proposed allowable development is consistent with aviation safety requirements.

City of Redwood City General Plan

General Plan Goal PS-8 is to protect City residents, businesses, and employees from potential hazards associated with the use, storage, transport, and disposal of hazardous materials in and through Redwood City. The General Plan includes policies for the purpose of avoiding or mitigating impacts from planned development in the City. The policies below are specific to hazards and hazardous materials and are applicable to the proposed project.

Policy	Description
Public Safety	
PS-10.1	Work to achieve consistency between General Plan land use and related policies and the San Carlos Airport Comprehensive Land Use Plan, as is appropriate for Redwood City. Measures may include restrictions on permitted land uses and development criteria, including height restrictions.

[58] City/County Association of Governments of San Mateo County. *Final Comprehensive Airport Land Use Compatibility Plan for the Environs of San Carlos Airport.* Adopted October 2015. Page 1-1.
[59] Section 11010(b)(13) of the Business and Professions Code requires people offering subdivided property for sale or lease to disclose the presence of all existing and planned airports within two miles of the property (Source: City/County Association of Governments of San Mateo County. *Final Comprehensive Airport Land Use Compatibility Plan for the Environs of San Carlos Airport.* Adopted October 2015. Page 4-45.)

Redwood City Emergency Operations Plan

The City has an Emergency Operations Plan (EOP) that provides a comprehensive emergency response document for natural disasters and man-made events. The EOP includes detailed emergency management procedures designed for prevention, preparedness, response, and recovery. The EOP is reviewed and revised annually.

3.9.1.2 *Existing Conditions*

The site is approximately 2.54 acres and is comprised of four warehouses, outside storage structures and yards, undeveloped land in the northeastern part of the site, and at-grade surface parking. On-site operations include the storage and sales of new and used surplus metal items, such as pipes, metal sheeting, tubing, and other metal products.

The buildings on-site were built in stages between 1963 and 1980. Alan Steel and Supply Co. has been the owner and operator since 1963. Prior to the construction of the current buildings, the area was vacant land, and prior to the import of fill to the site, the area was bay marshland.

Phase I ESA Findings

A Phase I Environmental Site Assessment completed by Langan in July of 2019 assessed potential sources of contamination on the site, as summarized below.

Environmental Database and File Review

Information from the environmental databases maintained by the United States Environmental Protection Agency, federal, state, and local agencies within the approximate minimum search distances was included within an Environmental Database Report prepared for the site. The site was identified in the following databases searched: San Mateo County Business Inventory, FINDS, HAZNET, and CRS. The site was listed on these databases because of its historical identification as an intermittent hazardous waste generator of an undetermined amount of universal waste.[60] Historically gasoline was stored in 55 gallon drums to fuel some of the vehicles and equipment operating on the property. Currently, the site mainly stores oxygen, acetylene used for welding, propane to power the forklifts, and lubrication oils for steel cutting machinery.

Additionally, online databases operated by the California Department of Toxic Substances Control (DTSC) (EnviroStar) and San Francisco Bay Regional Water Quality Control Board (Water Board) (GeoTracker) were researched and inquiries were made at the Redwood City Fire Department, and the San Mateo County Environmental Health Department (SMCEHD) regarding any additional files related to any past or current fuel and hazardous materials leaks. No relevant files were located.

[60] Universal wastes are hazardous wastes that are widely produced by households and many different types of businesses. Universal wastes include televisions, computers, and other electronic devices as well as batteries, fluorescent lamps, mercury thermostats, and other mercury containing equipment, among others. Source: Department of Toxic Substances Control. Universal Waste Fact Sheet. January 2010.

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 project site is not listed within the Cortese List. [61]

Contaminated Fill Material

The fill material beneath the site contains concentrations of several metals (arsenic and mercury), chlordane (one detection) and total petroleum hydrocarbons as gasoline (TPHg), TPH motor oil (TPHmo) and TPH as diesel (TPHd), Semi-volatile organic compounds (SVOCs), volatile organic compounds (VOCs), organochlorine pesticides (OCPs) and polychlorinated biphenyl (PCBs). Of the compounds detected only arsenic, lead, TPHd at one sample location, and PCBs were above the Water Board's 2019 residential environmental screening levels (ESLs). All detections of arsenic and other metals detections were within background concentrations of Northern California soils, respectively. The source of these detections appears to be the fill material that was imported in the 1960's.

The PCB, Arochlor 1260, was detected in soil samples at several locations in fill across the site. In the northeastern undeveloped portion of the site, the majority of the PCB concentrations exceed the ESL. All detections of PCBs exceed the Water Board's Total Maximum Daily Load of 0.001 milligrams per kilogram (mg/kg). The location and distribution of PCBs in soil does not indicate an on-site source. The source of these detections of PCBs and other compounds appears to be fill material that was imported in the 1960's.

Phase II ESA Findings

A Phase II Environmental Site Assessment completed by Langan in May of 2019 took soil and groundwater samples to assess conditions on-site, as summarized below.

Total Petroleum Hydrocarbons in Soil

All TPHg detections were reported below the residential ESL of 430 mg/kg and all TPHmo detections were reported below the residential ESL of 12,000 mg/kg. TPHd exceeded the residential ESL of 260 mg/kg at one location on-site at a depth of one foot below ground surface.

Volatile and Semivolatile Organic Compounds in Soil

A total of four VOCs, including ethylbenzene, PCE, vinyl chloride and total xylenes, were detected in 13 of 21 samples analyzed on-site. All VOC detections were below residential ESLs.

A total of eight SVOCs, including benzo (a) pyrene [B(a)P], benzo (b) fluoranthene [B(b)F], 4-chloroaniline, dibenzo(a,h)anthracene [D(a,h)A], indeno(1,2,3-cd)pyrene [I(1,2,3-cd)P, 2-methylnaphthalene, naphthalene and phenol, were detected in 20 of 21 samples analyzed on-site. All SVOC detections were below residential ESLs.

[61] California Environmental Protection Agency. "Cortese List Data Resources." Accessed February 1, 2022. https://calepa.ca.gov/sitecleanup/corteselist/.

Chlorinated Herbicides in Soil

Chlorinated herbicides were not detected above their respective laboratory reporting limits in the 14 samples analyzed.

Polychlorinated Biphenyls

One PCB, Aroclor 1260, was detected above laboratory reporting limits in 24 of 27 samples analyzed. Aroclor 1260 exceeded the residential ESL of 0.23 mg/kg in 13 samples at concentrations ranging between 0.28 mg/kg to 6.9 mg/kg. PCB concentrations were also compared to the total daily maximum load of 0.001 mg/kg. All detected concentrations exceed the total daily maximum load.

Total Petroleum Hydrocarbons in Groundwater

TPHg was not detected above the laboratory reporting limit of 50 µg/L in the four samples analyzed. The RWQCB's Ecological ESL for salt water habitats of 640 µg/L for TPHd was only exceeded in one sample at a concentration of 1,200 µg/L.

Volatile and Semivolatile Organic Compounds in Groundwater

A total of nine VOCs, including acetone, 2-butanone, t-butyl alcohol, 1,1-dichloroethene, 2-hexanone, 4-methyl-2-pentanone, naphthalene, 1,1,2-trichloroethane and vinyl chloride, were detected at low concentrations ranging between 0.041 µg/L and 61 µg/L.

A total of 15 SVOCs were detected above laboratory reporting limits, however no detections of SVOCs exceeded residential ESLs.

Polychlorinated Biphenyls in Groundwater

PCBs were not detected above their respective laboratory limits in the four samples analyzed.

Metals in Groundwater

Antimony, arsenic, barium, cobalt, molybdenum, and nickel were detected above laboratory reporting limits.

Soil Gas

The Phase II Environmental Site Assessment took soil gas samples to assess conditions on-site. A total of three VOCs, including benzene, dichlorotetrafluoroethane, and 1,2,4-trimethylbenzene, were detected at concentrations at or above laboratory reporting limits in the four soil gas samples analyzed. Of these samples, benzene was the only compound that was reported above the residential ESL of 3.2 µg/m^3 at a concentration of 16.5 µg/m^3.

Based on the results of the groundwater samples, a source of petroleum VOCs is not present in groundwater.

Off-Site Potential Sources of Contamination

The Phase I Environmental Site Assessment completed by Langan in July 2019 analyzed off-site facilities listed on databases for having known contamination in soil and groundwater that were most likely to represent potential environmental concern at the project site. These areas include nearby properties or locations that were in the near vicinity and/or hydraulically upgradient of the site. A summary of these properties is included below.

525 East Bayshore Road

This property was formerly utilized as a car dealership and is located directly adjacent and upgradient to the site. According to Water Board records, the LUST case at this property was closed as of August 1996 and no further action was required. Therefore, the potential for this property to affect the subsurface conditions at the project site is low.

503 Whipple Avenue

This property is a gas station and is located approximately 0.25 mile upgradient to the site and is an open LUST case. The former underground storage tanks (UST) and fuel dispensing islands were removed in early 1985 and replaced with the new tanks. Several environmental investigations have been conducted since 1985, including the installation and destruction of groundwater monitoring wells, the installation of soil vapor sampling wells, and soil sampling. From 1991 to the present remedial actions have been completed under the regulatory oversight of SMCEHD. Given distance to the site, the low hydraulic conductivity of the underlying Bay Mud, and the non-detect concentrations of VOCs in the downgradient wells from the property (upgradient to the 505 East Bayshore development site), the potential for this property to affect the environmental conditions at the project site is low.

504 Whipple Avenue

This property is associated with the adjacent gas station at 503 Whipple Avenue and is less than 0.25 mile upgradient from the site and is listed as a closed LUST site. In March 1986 a release was reported following the removal of seven USTs: five gasoline USTs, one waste-oil UST, and one abandoned UST. The site was approved for case closure in September 2016 by the SMCEHD. Given distance to the site, the low concentrations of VOCs in groundwater, and that the property was granted case closure by SMCEHD, the potential for this property to affect the environmental conditions at the site is considered low.

Airports

The project is located approximately 6,300 feet southeast of the San Carlos Airport and is within Airport Influence Area B. The project is subject to formal ALUC/C/CAG review to ensure that development is consistent with aviation safety requirements. The site is not within existing or 2035 San Carlos Airport noise contours. The site is within the Airport Safety Zone 6, “Traffic Pattern Zone”. A maximum building height of 255 vertical feet is permitted at the project site per Part 77

Airspace Protection Surfaces. Any buildings exceeding 150 feet in height at the project site are required to inform the FAA 30 days prior to the start of construction.[62]

Wildland Fire

As discussed in Section 3.20, the project site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones.[63]

3.9.2 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?

[62] City/County Association of Governments of San Mateo County (C/CAG). *Comprehensive Airport Land Use Compatibility Plan for the Environs of San Carlos Airport*. Exhibit 4-4a FAA Notification Form 7460-1 Filling Requirements. April 2015.

[63] Sources: 1) State of California Department of Forestry and Fire Protection. *San Mateo County Fire Hazard Severity Zones in SRA*. Adopted November 7, 2007. and 2) State of California Department of Forestry and Fire Protection. *Redwood City Very High Fire Hazard Severity Zones in LRA As Recommended by CAL FIRE.* Adopted November 24, 2008.

3.9.2.1 *Project Impacts*

Impact HAZ-1:	The project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. **(Less than Significant Impact with Mitigation Incorporated)**

Construction

As discussed in Section 3.9.1.2, the fill beneath the site contains concentrations of arsenic, mercury, chlordane, total petroleum hydrocarbons such as TPHg, TPHmo, TPHd, SVOCs, VOCs, OCPs, and PCBs. Of the compounds detected, only arsenic, lead, TPHd at one sample location, and PCBs were above the Water Board's 2019 residential environmental screening levels (ESLs). The project would include placement of a three- to five-foot cap in order to mitigate sea level rise, the installation of hardscapes, including buildings, roads, sidewalks, and/or soil cover, and the adoption of institutional controls, such as a Land Use Covenant, to ensure the cap would not be disturbed or penetrated. The installation of the cap/hardscape and the adoption of a Land Use Covenant would mitigate the risk of off-site transport of PCBs to the Bay and would provide a barrier to mitigate the risk of exposure to PCBs and other chemicals present in on-site fill material. However, construction activities could result in the exposure of construction workers (and surrounding uses) to hazardous materials. Therefore, the City will require implementation of the following mitigation measure:

Impact HAZ-1: The project could expose construction workers to hazardous materials associated with contaminated fill on the site.

Mitigation Measures: The following mitigation measure would reduce hazardous materials impacts to a less than significant level:

MM HAZ-1.1: Prior to the issuance of a demolition permit and before any substantial ground disturbance, the applicant shall hire a qualified environmental professional to prepare a Site Management Plan (SMP) for the project site. The SMP, and any remedial actions required as part of it, shall be implemented by the applicant and its contractors to the satisfaction of the relevant oversight agencies (City of Redwood City Fire Department, San Francisco Bay Regional Water Quality Control Board (RWQCB), and/or San Mateo County or State Department oversight agency, or other appropriate agency having jurisdiction) to ensure sufficient minimization of risk to human health and the environment is completed. At a minimum, the SMP shall:

7. Establish minimum requirements for worker training and site-specific health and safety plans, to protect the general public and workers in the construction area (note: these requirements and all previous environmental sampling results shall be provided by the applicant to all contractors, who shall be responsible for developing their own construction worker health and safety plans and training requirements).

8. Establish appropriate site-specific cleanup targets for site soils that are protective of human health and the environment, based on the proposed future land uses(s). At a minimum, these targets shall be equal to, or more protective than the RWQCB ESLs for Residential Use; or in the case of contaminants that have naturally occurring background levels that exceed the residential ESLs, the target shall be equal to, or more protective than, the regional background level for that contaminant.

9. Identify and implement measures such as excavation, containment, or treatment of the contaminated soils to achieve the plan's cleanup targets, and/or to provide protection of future site users from exposure to remaining soil (if any) that exceed the plan's clean-up targets, including:

    a. Description of post-excavation confirmation sampling requirements. If residual contamination remains at the site above the site-specific cleanup targets, include appropriate controls, including institutional controls where and if necessary, to assure that activities by future users do not expose them to unacceptable health and safety risks. Such controls may include, but are not limited to, visual barriers over contaminated soil, followed by a cap of clean soil or hard surface materials; operation and maintenance protocols for any disturbance of contaminated soils; and recording of deed restrictions, such as activity and use limitations, with the San Mateo County Recorder's Office to assure that the remedy is maintained.

    b. If excavated soils are to be reused on-site, characterization shall be undertaken to determine that such materials do not exceed the established cleanup targets for the site, or that such reused materials are subject to appropriate controls, as described in the bullet point above for addressing residual contamination.
    c. If excess materials are off-hauled, waste profiling of the material shall be completed and documented. Materials classified as nonhazardous waste shall be transported under a bill of lading. Materials classified as hazardous waste shall be transported under a hazardous waste manifest. All materials shall be disposed of at an appropriately licensed landfill or facility.

    d. Trucking operations shall comply with the California Department of Transportation and any other applicable regulations, and all trucks shall be licensed and permitted to carry the appropriate waste classification. The tracking of dirt

by trucks leaving the project site shall be minimized by cleaning the wheels on exiting and cleaning the loading zone and exit area as needed.

10. Establish procedures for dewatering of construction excavations and/or dewatering of excavated sediments prior to off-hauling (if required), consistent with federal, state, and local regulations, specifying methods of water collection, handling, transport, treatment, discharge, and disposal for all water produced by dewatering activities.

11. Identify measures to protect future site users from contact with contaminants in groundwater. Such measures may include operation and maintenance protocols for any disturbance of groundwater, and recording of deed restrictions, such as activity and use limitations, with the San Mateo County Recorder's Office to assure that the implemented remedy(ies) is maintained.

12. Include contingency measures to address unanticipated conditions or contaminants encountered during construction and development activities. The contingency measures shall establish and describe procedures for responding in the event that unanticipated subsurface hazards or hazardous material releases are discovered during construction, including appropriately notifying nearby property owners, schools, and residents, and following appropriate site control procedures. Control procedures would include, but not be limited to further investigation; and if necessary, remediation of such hazards or releases, including off-site removal and disposal, containment, or treatment. If unanticipated subsurface hazards or hazardous material releases are discovered during construction, the contingency measures addressing unknown contaminants shall be followed. The contingency measures shall be amended as necessary if new information becomes available that could affect implementation of the measures.

Implementation of the mitigation measure would reduce impacts of potential hazards to construction workers to a less than significant level.

Operation

The project does not propose any on-site use of hazardous materials other than small quantities of herbicides and pesticides for landscaping maintenance, cleaning supplies, and maintenance chemicals. Chemicals would be managed in accordance with federal, state, and local laws and regulations that ensure on-site use, storage, transportation and disposal of chemicals would result in a less than significant impact. These laws and regulations include the Hazardous Materials Transportation Act, which protects the public and environment from the risks associated with the transportation of hazardous materials, Department of Transportation 49 Code of Federal Regulations [CFR] 173.3 and EPA 40 CFR 264.175, which specify how hazardous materials are to be contained,

and OSHA 29 CFR 1910.106 (e)(2)(iii), which specifies how hazardous materials are to be transferred safely. No other routine use, storage, transportation, or disposal of hazardous materials are proposed or would be required as part of the project. **(Less than Significant Impact)**

Soil Vapor

Benzene was the only compound that was reported above the residential ESL of 3.2 µg/m3 at a concentration of 16.5 µg/m3. It should be noted that some compounds had elevated reporting limits above ESLs in all four soil gas samples analyzed, including benzene, 1,4-dichlorobenzene, PCE, and trichloroethylene (TCE). Based on results of the soil and groundwater samples, a source of HVOCs is not present in soil and groundwater. With the exception of two low detections of ethylbenzene and xylenes, petroleum VOCs were also not detected above laboratory reporting limits in soil and groundwater. Oxygen was detected at 8.29% at location LB-1 where benzene was detected above ESLs and, as stated in the LTCP, if oxygen greater than or equal to 4% petroleum VOCs will attenuate and degrade over time. In import and placement of clean fill on the site to raise elevations above the flood zone to raise the site elevation will increase the vadose zone[64] and allow low detections of petroleum VOCs to attenuate and degrade. Because of reasons stated above, soil vapor intrusion risk is low and would not result in a significant hazard to future residents and no vapor mitigation system is recommended or required. **(Less than Significant Impact)**

Impact HAZ-2:	The project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. **(Less than Significant Impact with Mitigation Incorporated)**

As previously described under Impact HAZ-1, the project would properly store small quantities of landscaping, cleaning, and maintenance products. No other hazardous materials would be used on-site during project operation. Thus, there would be no significant hazardous materials that could be released during upset and accident conditions.

Additionally, with implementation of the mitigation measure discussed under HAZ-1, any contaminated soils and groundwater on-site would be properly managed during construction so as to not expose construction workers, the public, or the environment to hazardous materials. Therefore, the project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. **(Less than Significant Impact with Mitigation Incorporated)**

Impact HAZ-3:	The project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. **(No Impact)**

The nearest school to the project site is Redwood High School located at 1968 Old Country Road, approximately 1.1 miles southwest of the project site.

[64] The vadose zone, also termed the unsaturated zone, is the part of earth between the land surface and the top of the phreatic zone, the position at which the soil is saturated with groundwater.

As discussed in Impact HAZ-1, less than significant quantities of cleaning supplies, maintenance chemicals, and herbicides and pesticides for landscape maintenance would be stored and used in operation of the proposed project. No other routine use, storage, transportation, or disposal of hazardous materials are proposed or would be required as part of the project. Based on the above discussion and the location of the nearest school, there would be no emissions or handling of hazardous materials within one-quarter mile of an existing or proposed school. **(No Impact)**

Impact HAZ-4:	The project would not 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, create a significant hazard to the public or the environment. **(No Impact)**

As discussed in Section 3.9.1.2, the project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (i.e., the Cortese List). **(No Impact)**

Impact HAZ-5:	The project would not be 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. **The project would not result in a safety hazard or excessive noise for people residing or working in the project area. (Less than Significant Impact)**

The project site is located within San Carlos Airport Influence Area B and is subject to formal ALUC/C/CAG review to ensure development is consistent with aviation safety requirements. These requirements include conformance with regulations concerning land uses, noise exposure, and airspace protection.

The site is located within the San Carlos Airport's Safety Zone 6, which represents the Airport's Traffic Pattern Zone, an elliptical area that includes the majority of regular air traffic patterns and pattern entry routes.[65] Per the San Carlos Airport ALUCP, new residential and commercial development is compatible within this area.

Residential land uses are considered conditionally compatible in areas exposed to noise levels between CNEL 60-64. Areas that would be exposed to less than 60 dB CNEL are considered outside the San Carlos Airport noise impact area. As the proposed development is outside the 60 dB CNEL noise contour, people residing or working in the project area would not be exposed to excessive noise. Lastly, the proposed residential structures would be 38 feet tall at their highest point, well under the maximum allowable building height permitted by the ALUCP. The project would not result in a safety hazard or excessive noise for people residing or working in the project area. **(Less than Significant Impact)**

[65] City/County Association of Governments of San Mateo County, Redwood City California. Comprehensive Airport Land Use Compatibility Plan for the Environs of the San Carlos Airport. Exhibit 4-3 San Carlos Airport Safety Zones. October 2015.

Impact HAZ-6:	The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. **(Less than Significant Impact)**

Background

2003 Marina Shores Village Final EIR

In 2003, the City of Redwood City certified the Final EIR for the Marina Shores Village project roughly 0.35 mile east of the project site. The proposed development program for the Marina Shores Village project included a mix of approximately 1,930 housing units, 300,000 square feet of office floor area, and 12,000 square feet of retail space in an array of multi-story structures up to 21 stories. Due to concerns raised over potential impacts associated with emergency access resulting from limited ingress/egress in the project area, the 2003 Final EIR analyzed roadway segments on Bair Island Road, East Bayshore Road, and Whipple Avenue (near the project site) to determine the adequacy of access to and from the project site during an emergency. The threshold of significance for emergency access impacts in the 2003 Final EIR was whether the addition of project traffic would cause or exacerbate existing traffic level of service (LOS) F operations on Bair Island Road, East Bayshore Road, or Whipple Avenue in an emergency situation. For the purposes of this analysis, an emergency situation was defined as a situation where the entire Bair Island Road area needs to be evacuated in 30 minutes.

Voter Referendum and Subsequent Development

Following certification of the 2003 Final EIR and approval of the project, the Marina Shores Village project was repealed via voter referendum in 2004. Three modified projects have since been approved and constructed in the area encompassed by the Marina Shores Village project: 1) One Marina project (2010, 231 residential units), 2) Pete's Harbor project (2014, 402 residential units), and 3) One Marina Hotel project (2014, 177 hotel rooms). All three projects tiered off the 2003 Marina Shores Village Final EIR for CEQA clearance, either through addenda or a determination of consistency.

Evaluation of Emergency Access Impacts from the Proposed Project

In order to evaluate the potential for new development to cause emergency access impacts in the project area, the City retained Fehr & Peers to complete an analysis of various emergency evacuation scenarios (refer to Appendix H). The project area (referred to as the "evacuation area" in the Fehr & Peers analysis) is defined as East Bayshore Road and Bair Island Road areas east of Interstate 101 in Redwood City. The analysis was completed in two phases, as discussed in further detail below. City staff, including Fire Department personnel, worked closely with Fehr & Peers on this analysis providing direction and feedback to the consultant.

Phase 1 – Identification of Emergency Scenarios and Evacuation Time Benchmarks

Phase 1 of the analysis identified and evaluated the likelihood and consequence of potential hazards considered to present a threat to the project area, identified emergency evacuation and people management strategies for relevant hazards (i.e., shelter in place, evacuate to upper floors, or

evacuate immediately), and investigated evacuation time benchmarks for relevant hazards (including the 30-minute benchmark used in the 2003 Final EIR).

The analysis determined that flooding (100-year storm/shoreline overtopping and severe weather), earthquakes (including tsunamis originating in the San Francisco Bay), post-earthquake fires, pipeline failure, and exterior combustible fires were potential risks to the project area needing a people management strategy. King Tides, dam failure, landslide, wildfire, tsunami originating from the Pacific Ocean, drought, and hazardous materials releases were determined to either not be relevant to the project area or would not warrant an emergency people management strategy. Based on the hazardous materials inventory provided through the California Environmental Reporting System (CERS), assumed worst case hazardous materials release scenarios did not result in direct impacts to the project area. PG&E maintains a Natural Gas Pipeline (30-inch diameter) which runs down Winslow Street and Industrial Way. This is on the opposite side of US 101 from the project area and is approximately 2,000 feet from the project area to its nearest point. The pressure of the pipeline is unknown, but the PG&E standard for this type of pipeline is 60 pounds/square-inch (psi). Based on this diameter and pressure maximum, the project area is outside of the recommended evacuation zone identified by the Pipeline Association for Public Awareness.

For each of the emergency scenarios determined to be a potential risk to the project area, the analysis identified applicable emergency evacuation/people management strategies, as shown in Table 3.9-1 below. It should be noted that for many scenarios, sheltering in place is recommended as the primary strategy, and even in scenarios where evacuation is recommended, sheltering in place is considered a viable secondary option.

Table 3.9-1: Hazard and Risk Analysis for Hazards Impacting the Evacuation Area

Hazard	Threat to Evacuation Area? (Y/N)	Likelihood (very low, low, medium, high)	Consequence to Life Safety (very low, low, medium, high)	Warning Time (Y/N)	Need for People Management Strategy	Preliminary Emergency People Management Strategy
Flooding - 100-yr Storm/ Shoreline Overtopping	**Yes**	Low	Medium	Yes	**Yes**	(1) Evacuate out of evacuation area, (2) shelter-in-place as last resort option
Flooding - Severe Weather	**Yes**	Medium	Very low	Yes	**Yes**	(1) Shelter-in-place in evacuation area (to avoid flooded roads), (2) evacuate as last resort option
Earthquake (including tsunamis originating in the San Francisco Bay)	**Yes**	Medium	Medium to High	No	**Yes**	(1) Shelter-in-place, (2) vertical evacuation (if Bay-side tsunami) or evacuation of evacuation area after event may be necessary
Post-Earthquake Fire	**Yes**	Low	High	No	**Yes**	(1) Shelter-in-place initially, (2) undertake rapid situational assessment then, (3) determine if shelter-in-place is adequate or if evacuating out of evacuation area is warranted due to urban conflagration concerns
Pipeline Failure[1]	**Yes**	Very low	Medium to High	No	**Yes**	Determine if shelter-in-place is adequate or if evacuation out of evacuation area is warranted due to nature of pipeline failure
Exterior Combustible Fire	**Yes**	Low	Low-Medium	Yes	**Yes**	(1) Shelter-in-place (2) evacuate as directed by emergency personnel

Notes:

1. As no specific information regarding use profiles, quantities, associated operations and/or location of infrastructure/materials has been provided, a worst-case failure scenario has been assumed.

Source: Jensen Hughes, 2021.

The analysis also investigated evacuation time benchmarks for relevant hazards. An evacuation time estimate (ETE) is a metric that is used to identify the time it takes for a selected population to evacuate a hazardous area due to an emergency. The general purpose of ETEs is to identify risks for evacuating populations and determine possible strategies that could decrease the time it takes to evacuate from a hazard. ETEs require a comparison of the evacuation population's demand for a transportation facility and the capacity of that facility. ETEs are not generally considered as a single time because many factors can produce a wide range of scenarios with varying ETEs. Consequently, there is no evidence that a single ETE benchmark is appropriate in all conditions. Even for the same location, the type of hazard and the behavioral response of people to the hazard can dramatically change ETEs. The analysis concluded that a 30-minute evacuation time benchmark for all evacuation scenarios, such as that used in the 2003 Final EIR, is not based on research, empirical evidence, or common understanding of evacuations. Every ETE calculation is specific to the above factors and local context, which inhibits the development of any recognized benchmarks or common rules of thumb. The assumption of a 30-minute benchmark for this project area, therefore, is not supported by practice or research.

Phase 2 – Analysis of Evacuation Routes and Evacuation Time Estimates

Phase 2 of the analysis identified evacuation routes (including pedestrian, bicycle, vehicular and waterway egress, and options to temporarily provide additional capacity) and transportation network capacity available during each evacuation scenario identified in the Phase 1 analysis, calculated evacuation preparation and travel time estimates (e.g., last evacuee leaves the project area) for each evacuation scenario, and recommended potential strategies the City could consider to decrease evacuation preparation and travel time estimates specific for the project area.

Table 3.9-2 below summarizes the eight evacuation scenarios developed with staff from the City's Community Development and Transportation Departments along with staff from the Fire Department. For this assessment, a generalized hazard was assumed which required an immediate and rapid evacuation of the evacuation area to protect people. The hazard was assumed to occur either at 3:00 AM or 6:00 PM (i.e., evening commute) to capture different populations and traffic conditions in the evacuation area. Scenarios 1-4 assumed an evacuation occurs at 3:00 AM to account for events when residents in the evacuation area would be at home. Scenarios 5-11 assumed an evacuation occurs at 6:00 PM to account for events when some residents, employees, and visitors would in the evacuation area, and background traffic from the evening commute period would be on the roadways. Baseline conditions (Scenarios 1, 2, 3, 5, 6 and 7) assumed year 2018 and Future conditions (Scenarios 4 and 8 - 11) assumed a 2025 horizon year. Please note that "with projects" in Table 3.9-2 refers to conditions assuming buildout of both the proposed project (505 E. Bayshore Road) and the proposed development located on the adjacent property (557 E. Bayshore Road). Future 2025 conditions were evaluated under scenarios both with and without buildout of the Blomquist Street extension. Future (2025) Without Project and Future (2025) With Project scenarios at 3:00 AM are excluded from this table since they are presumed to be the same as Baseline (2018) Without Project and Baseline (2018) Without Project scenarios at 3:00 AM, respectively, since there would be no changes in background traffic along evacuation routes between 2018 to 2025 at 3:00 AM.

Table 3.9-2: Evacuation Scenario Summary

Criteria	Scenario[1, 2]										
	1	2	3	4	5	6	7	8	9	10	11
Study Year	Baseline (2018)	Baseline (2018)	Baseline (2018)	**Future (2025)** With Blomquist Bridge	Baseline (2018)	Baseline (2018)	Baseline (2018)	**Future (2025)**	**Future (2025)**	**Future (2025)**	**Future (2025)** With Blomquist Bridge
Project Conditions[3]	Without Projects	**With** Projects	**With 505 E Bayshore**	**With** Projects	Without Projects	**With** Projects	**With 505 E Bayshore**	Without Projects	**With** Projects	**With 505 E Bayshore**	**With** Projects
Time of Day	3:00 AM	3:00 AM	3:00 AM	3:00 AM	**6:00 PM**	**6:00 PM**	**6:00 PM**	**6:00 PM**	**6:00 PM**	**6:00 PM**	**6:00 PM**

Notes:
1. Future (2025) Without Projects and Future (2025) With Projects scenarios at 3:00 AM are excluded from this table since they are presumed to be the same as Baseline (2018) Without Projects and Baseline (2018) Without Projects scenarios at 3:00 AM, respectively, since there would be no changes in background traffic along evacuation routes between 2018 to 2025 at 3:00 AM.
2. Day of Week (mid-week), Hazard Type (hazard), Hazard Response (immediate evacuation), Evacuation Area (entire area), and Mode Choice (auto only) assumed consistent for all scenarios.
3. "With Projects" Conditions includes the proposed developments at 505 E. Bayshore Road and 557 E. Bayshore Road.

Source: Fehr & Peers, 2022.

The figure below shows locations of the evacuation area, evacuation routes, evacuation zones, and the proposed project in this evacuation assessment. For purposes of estimating evacuation travel times, City staff identified that people/animals should be considered evacuated once they have exited the evacuation area.

The City's selected evacuation routes are shown in the figure below, which represent a condition where everyone would need to evacuate the evacuation area by vehicle via evacuation routes #1, #2, and #3, and evacuation route #4 in scenarios that assumed the buildout of the proposed Blomquist Bridge extension. The assumption that all evacuees would use a vehicle was used to denote a condition where the street network would be most congested. It should be noted that several evacuation routes for pedestrians and cyclists are available to evacuees from the evacuation area, enabling those without access to a vehicle to still evacuate.

The evacuation area was divided into four "evacuation zones" (A, B, C, and D). People within each evacuation zone would behave differently during an evacuation based on the zone's land use (e.g., there may be more/less people in each zone depending on time of day) and the zone's geographic location and access to the available evacuation routes. Under a scenario with only one evacuation route all zones would use the single evacuation route. However, under a scenario with multiple evacuation routes, the trips from each zone will be distributed to the available routes based on proximity to each route.

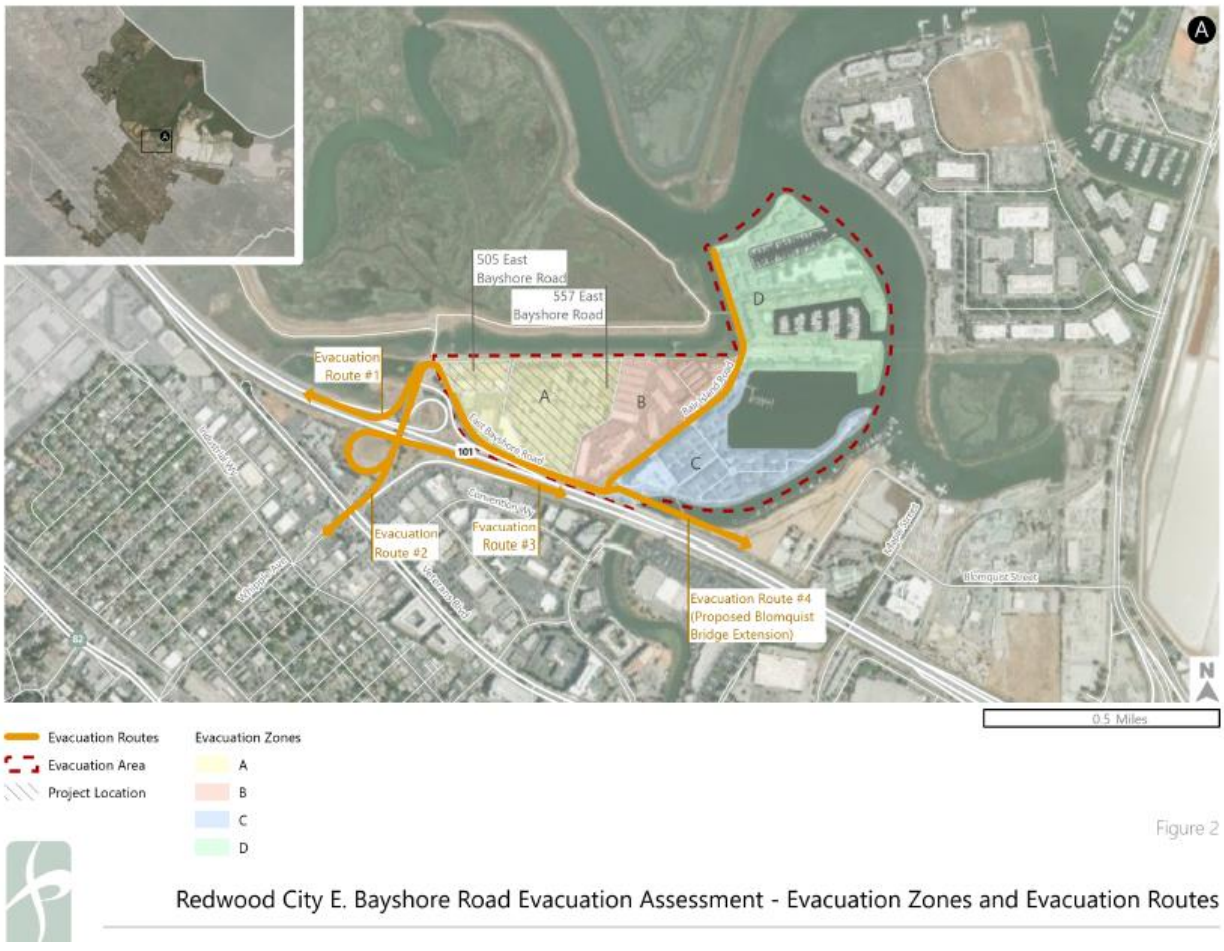

Figure 2

Redwood City E. Bayshore Road Evacuation Assessment - Evacuation Zones and Evacuation Routes

The number of residents, employees, and hotel guests, percent of occupancy by time of day (3:00 AM and 6:00 PM), and anticipated vehicle availability by land use in the evacuation area were used to estimate the total number of vehicles that would need to evacuate by scenario. Table 3.9-3 and Table 3.9-4 summarize the existing (2018) and future (2025) land use information for the evacuation area, respectively, and include the anticipated maximum number of people, percent occupancy by time of day (3:00 AM and 6:00 PM), and vehicle availability by land use. Vehicle accessibility was also reviewed to identify the number of households and unique land uses (such as hotels) in the area that would potentially have issues during an evacuation due to limited mobility options.

A scenario was developed where all residents, employees, and visitors in the evacuation area would need to be evacuated according to the land use information in Table 3.9-3 and Table 3.9-4. The trips assigned to the evacuation route network are estimated based on household and employer demographics (e.g., number of people per household, vehicles owned per household, and mode assumed to/from work). This assessment assumed that employment centers would provide evacuation assistance to employees without access to a vehicle and that some households with more than two vehicles would not utilize all their vehicles during an evacuation (e.g., homes with three or four vehicles but only two licensed drivers). This resulted in the estimated total vehicle trips needing to evacuate the area as shown in Table 3.9-5. These trips are used to estimate the amount of time needed to evacuate the area using a TransCAD dynamic traffic assignment model.

Based on the information above, ETEs were calculated for each evacuation scenario, as summarized in Table 3.9-6, below.

Table 3.9-3: Existing (2018) Land Use Summary

Evacuation Zone	Name	Land Use	Size	Units	Max People		Occupancy		Vehicles Available[1]	
					Per Unit	Total	3:00 AM	6:00 PM	3:00 AM	6:00 PM
A	Toyota 101	Auto Dealer	41	ksf	2.50	103	0%	100%	1	1
	Alan Steel & Supply Co.	Light Industrial	28.25	ksf	2.22	63	0%	100%	1	1
	Boardwalk Chevrolet	Auto Dealer	23.85	ksf	2.50	60	0%	100%	1	1
	Vacant Movie Theater (auto dealer storage)	n/a	n/a	n/a	0.00	0	0%	0%	0	0
B	Boardwalk Auto Mall	Auto Dealer	54.29	ksf	2.50	136	0%	100%	1	1
	Bair Island Mini Storage	Mini Storage	62.8	ksf	2.22	140	0%	100%	1	1
	Bayport Plaza	Office	40	ksf	3.33	134	0%	75%	1	1
	Bayport Plaza	Light Industrial	45	ksf	2.22	100	0%	100%	1	1
	Marina Pointe	Townhomes	46	d.u.	2.73	126	100%	50%	2	2
C	One Marina Homes	Condominiums	231	d.u.	2.73	631	100%	50%	2	2
	Marriott Courtyard	Hotel (employees)	177	rooms	0.17	30	50%	100%	1	1
	Marriott Courtyard	Hotel (guests)	177	rooms	5	885	100%	50%	1	1
D	Bair Island Marina	Marina	95	slips	0.00	0	0%	0%	0	0
	The Villas	Apartments	155	d.u.	2.73	424	100%	50%	2	2
	Blu Harbor/Pete's Harbor	Apartments	402	d.u.	2.73	1,098	100%	50%	2	2
	Blu Harbor/Pete's Harbor	Marina	64	slips	0.00	0	0%	0%	1	1

Notes:
1. Vehicles Available for non-residential is per person/employee and for residential is per dwelling unit/rooms to account for sharing of rides between household members.
2. ksf = 1,000 square feet, d.u. = dwelling units, and slips = boat slips.

Source: Redwood City, 2022; Fehr & Peers, 2022.

Table 3.9-4: Future (2025) Land Use Summary

Evacuation Zone	Name	Land Use	Size	Units	Max People		Occupancy		Vehicles Available[1]	
					Per Unit	Total	3:00 AM	6:00 PM	3:00 AM	6:00 PM
A	Regis Homes[2]	Townhomes	56	d.u.	2.73	153	100%	50%	2	2
	Existing Alan Steel & Supply Co. to be removed[2]	Light Industrial	-28.25	ksf	2.22	-63	0%	100%	1	1
	Syufy Site/SyRes Properties[3]	Multifamily	480	d.u.	2.20	1,056	100%	50%	2	2
	Syufy Site/Villa Sport[3]	Fitness Center	97.1	ksf	1.16	113	0%	100%	1	1
	Vacant Movie Theater (auto dealer storage) to be removed[3]	n/a	n/a	n/a	0.00	0	0%	0%	0	0

Notes:
1. Vehicles Available for non-residential is per person/employee and for residential is per dwelling unit/rooms to account for sharing of rides between household members.
2. The 505 E. Bayshore Road project (i.e., Regis Homes) proposes to demolish the existing Alan Steel & Supply Co. on the site to construct 56 townhouses.
3. The 557 E. Bayshore Road project (i.e., Syufy Site) proposes to add a total of 480 multifamily residential units and a 151,423 square-foot (sf) fitness center (97,101 sf of indoor uses and 51,209 sf of outdoor uses).
4. ksf = 1,000 square feet, d.u. = dwelling units, and slips = boat slips.

Source: Redwood City, 2022; Fehr & Peers, 2022.

Table 3.9-5: Number of Vehicle Trips by Scenario

Criteria	Scenario[1, 2]										
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
Study Year	Baseline (2018)	Baseline (2018)	Baseline (2018)	**Future (2025)**	Baseline (2018)	Baseline (2018)	Baseline (2018)	**Future (2025)**	**Future (2025)**	**Future (2025)**	**Future (2025)**
Project Conditions[3]	Without Projects	**With** Projects	**With 505 E Bayshore Only**	**With** Projects and Blomquist Bridge	Without Projects	**With** Projects	**With 505 E Bayshore Only**	Without Projects	**With** Projects	**With 505 E Bayshore Only**	**With** Projects and Blomquist Bridge
Time of Day	3:00 AM	3:00 AM	3:00 AM	3:00 AM	**6:00 PM**	**6:00 PM**	**6:00 PM**	**6:00 PM**	**6:00 PM**	**6:00 PM**	**6:00 PM**
Total Vehicle Trips	1,860	2,932	1,972	2,932	1,656	2,242	1,649	1,656	2,242	1,649	2,242
Evacuation Zone A	*0*	*1,072*	*112*	*1,072*	*226*	*812*	*219*	*226*	*812*	*219*	*812*
Evacuation Zone B	*92*	*92*	*92*	*92*	*523*	*523*	*523*	*523*	*523*	*523*	*523*
Evacuation Zone C	*654*	*654*	*654*	*654*	*350*	*350*	*350*	*350*	*350*	*350*	*350*
Evacuation Zone D	*1,114*	*1,114*	*1,114*	*1,114*	*557*	*557*	*557*	*557*	*557*	*557*	*557*

Notes: Total vehicle trips per evacuation zone = units x people per unit x occupancy by time of day / people per vehicle.

1. Future (2025) Without Projects and Future (2025) With Projects scenarios at 3:00 AM are excluded from this table since they are presumed to be the same as Baseline (2018) Without Projects and Baseline (2018) Without Projects scenarios at 3:00 AM, respectively, since there would be no changes in background traffic along evacuation routes between 2018 to 2025 at 3:00 AM.
2. Day of Week (mid-week), Hazard Type (hazard), Hazard Response (immediate evacuation), Evacuation Area (entire area), and Mode Choice (auto only) assumed consistent for all scenarios.
3. "With Projects" Conditions includes the proposed developments at 505 E. Bayshore Road and 557 E. Bayshore Road.

Source: Fehr & Peers, 2022.

Table 3.9-6: Evacuation Scenario Summary and Results

Criteria	Scenario[1, 2]										
	1	2	3	4	5	6	7	8	9	10	11
Study Year	Baseline (2018)	Baseline (2018)	Baseline (2018)	**Future (2025)**	Baseline (2018)	Baseline (2018)	Baseline (2018)	**Future (2025)**	**Future (2025)**	**Future (2025)**	**Future (2025)**
Project Conditions[3]	Without Projects	**With** Projects	**With 505 E Bayshore Only**	**With** Projects And Blomquist Bridge	Without Projects	**With** Projects	**With 505 E Bayshore Only**	Without Projects	**With** Projects	**With 505 E Bayshore Only**	**With** Projects and Blomquist Bridge
Time of Day	3:00 AM	3:00 AM	3:00 AM	3:00 AM	**6:00 PM**	**6:00 PM**	**6:00 PM**	**6:00 PM**	**6:00 PM**	**6:00 PM**	**6:00 PM**
Total Vehicle Trips	1,860	2,932	1,972	2,932	1,656	2,242	1,649	1,656	2,242	1,649	2,242
Evacuation Zone A	*0*	*1,072*	*112*	*1,072*	*226*	*812*	*219*	*226*	*812*	*219*	*812*
Evacuation Zone B	*92*	*92*	*92*	*92*	*523*	*523*	*523*	*523*	*523*	*523*	*523*
Evacuation Zone C	*654*	*654*	*654*	*654*	*350*	*350*	*350*	*350*	*350*	*350*	*350*
Evacuation Zone D	*1,114*	*1,114*	*1,114*	*1,114*	*557*	*557*	*557*	*557*	*557*	*557*	*557*
Evacuation Preparation and Travel Time Estimate (minutes)[4]	90-95	110-115	90-95	105-110	120-125	150-155	120-125	150-155	170-175	150-155	125-130

Notes:
1. Future (2025) Without Projects and Future (2025) With Projects scenarios at 3:00 AM are excluded from this table since they are presumed to be the same as Baseline (2018) Without Projects and Baseline (2018) Without Projects scenarios at 3:00 AM, respectively, since there would be no changes in background traffic along evacuation routes between 2018 to 2025 at 3:00 AM.
2. Day of Week (mid-week), Hazard Type (hazard), Hazard Response (immediate evacuation), Evacuation Area (entire area), and Mode Choice (auto only) assumed consistent for all scenarios.
3. "With Projects" Conditions includes the proposed developments at 505 E. Bayshore Road and 557 E. Bayshore Road.
4. Dynamic Traffic Assignment (DTA) model estimates traffic and level of congestion on 5-minute intervals.

Source: Fehr & Peers, 2022.

The results of the ETE calculations show that under existing conditions, evacuation of the project area would take 90-95 minutes at 3:00 AM and 120-125 minutes at 6:00 PM. With construction and occupation of the two projects proposed at 505 E. Bayshore Road and 557 E. Bayshore Road, evacuation times would increase to 110-115 minutes at 3:00 AM and 150-155 minutes at 6:00 PM. With construction of just the 505 E. Bayshore project but not the 557 E. Bayshore project, estimated evacuations times are shown to be within the same five-minute window as existing conditions, indicating that the 505 E. Bayshore project does not substantially contribute to the projected increase in evacuation times due to its smaller size and trip generation compared to the 557 E. Bayshore project. As shown in Table 3.9-6 above, ETEs for the 6:00 PM scenario under future conditions in the year 2025, which account for increased background traffic volumes resulting from growth in the surrounding area, would be greater than existing conditions both with and without the two proposed projects. The construction of the Blomquist Street extension would reduce the ETE under existing conditions at 3:00 AM with the projects by only five minutes, but would reduce the ETE under future 2025 conditions at 6:00 PM with the projects by 45 minutes. Overall, the estimated ETEs range from a low of 90 minutes under existing conditions without the two projects to a high of 175 minutes under future 2025 conditions at 6:00 PM with the two projects but without the construction of the Blomquist Street extension.

Threshold of Significance

There is no established threshold of significance under CEQA for what would constitute an adequate emergency evacuation time. The threshold used in the 2003 Final EIR was based on an assumption that an emergency would require evacuation of the project area in 30 minutes, which is not supported by research, empirical evidence, or common understanding of evacuations. The 2003 Final EIR also used LOS F as the standard for determining whether the project had a significant impact on the ability to evacuate in an emergency. With the adoption of SB 743 and the implementing CEQA Guideline 15064.3, automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment under CEQA. As such, the City will not use the threshold of significance from the 2003 Final EIR for the project.

A threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect. It is the responsibility of the lead agency determine if an impact is significant under CEQA. In the area of emergency evacuation, there are two CEQA checklist questions that are relevant to the discussion:

- Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? (Hazards and Hazardous Materials)
- Would the project result in inadequate emergency access? (Transportation)

In addition, CEQA Guideline 15126.2 requires an EIR to "analyze any significant environmental effects the project might cause or risk exacerbating by bringing development and people into the area affected. For example the EIR should evaluate any potentially significant direct, indirect, or cumulative environmental impacts of locating development in areas susceptible to hazardous conditions."

Emergency Response and Evacuation Plans

Redwood City does not have an adopted emergency response plan or emergency evacuation plan specific to the project area. The City has an Emergency Operations Plan (EOP) that provides a comprehensive emergency response document for natural disasters and man-made events. The EOP includes detailed emergency management procedures designed for prevention, preparedness, response, and recovery. The City's EOP does not contain specific guidelines regarding evacuation times during emergency events, nor does it prescribe what evacuation conditions would be considered adequate. San Mateo County also has an adopted EOP, but it focuses primarily on the assignment of emergency response resources during an emergency event, not specific evacuation scenarios. In short, there are no adopted emergency response or evacuation plans with which the project, including the adjacent construction of housing on the property at 557 E. Bayshore Road, could interfere simply by being constructed and occupied.

Emergency Access

Additionally, as discussed in Section 3.17 Transportation, the project would be built in conformance with the current building and fire codes and be reviewed by the Fire Department to ensure adequate emergency access, including adequate fire apparatus access to buildings and adequate widths for on-site driveways and parking aisles. Emergency response vehicles would be able to access the project site from the driveway on East Bayshore Road. The width of the main internal road would be 26 feet wide, which is adequate for emergency vehicle access and circulation. Even in the emergency scenarios evaluated above, it was assumed that at least one lane of traffic would remain open for emergency response vehicles to access the site. As a result, the project cannot be said to result in inadequate emergency access.

Emergency Evacuation Exacerbating Effects

The potential exists for emergency events to occur that would require evacuation of the project area. The potential emergencies posing a threat to the project area identified by Fehr & Peers in the Phase 1 analysis are flooding (100-year storm/shoreline overtopping and severe weather), earthquakes (including tsunamis originating in the San Francisco Bay), post-earthquake fires, pipeline failure, and exterior combustible fires.

- Flooding (100-year storm/shoreline overtopping) – the primary people management strategy is an evacuation of the project area. Meteorological forecasting would give the City a significant amount of advanced notice of an impending 100-year storm that could result in shoreline overtopping. Additional people and vehicles within the project area would not impair the ability of emergency personnel to fully evacuate the project area in advance of a storm. In addition, as discussed in more detail in the Hydrology section, the project site is being elevated to three feet above the base flood elevation for a 100-year storm to protect the project from flooding.
- Flooding (severe weather) – the primary people management strategy is shelter-in-place with evacuation as a last resort. As stated in 3.9-5, flooding due to severe weather is not expected to pose a risk to life safety if shelter-in-place is implemented and individuals would be encouraged to remain off the roads.
- Earthquake (including tsunamis originating in the Bay) – the primary people management strategy is shelter-in-place, and a vertical evacuation within the project area to higher ground in the event of a tsunami. A complete and immediate evacuation of the project area due to an

earthquake or tsunami is very unlikely due to California's rigorous seismic safety standards for buildings, which make sheltering-in-place the preferred people management strategy. Furthermore, the project will be constructed in compliance with all current fire and seismic safety standards, further reducing the likelihood of an evacuation being required.

- Post-earthquake fire – the primary people management strategy for a post-earthquake fire is shelter-in-place followed by a rapid situational assessment to determine if evacuation is warranted due to urban conflagration concerns. An urban conflagration is highly unlikely for several reasons, including the prevalence of fire sprinkler systems in buildings and the spacing between structures. The project will be constructed in compliance with applicable fire codes. The project is also upgrading the water main serving the site, which will be constructed in compliance with current codes, and connect to the City's new 24-inch pipe that crosses US 101. Accordingly, the risk of a water infrastructure failure that inhibits the ability to fight an urban conflagration is very low. Further, an urban conflagration would not likely present the same level of risk to the entire project area and targeted/phased evacuation could be implemented.
- Pipeline failure – a case-by-case assessment would need to be conducted to determine the primary people management strategy for a pipeline failure. However, the only known pipeline in the vicinity of the project area is to the west of Interstate 101, and the project area is outside of the recommended evacuation zone for this pipeline.
- Exterior combustible fire – the primary people management strategy is shelter-in-place; evacuation would be as directed by emergency personnel. An evacuation of the project area may occur if smoke or toxic contaminants from a factory fire travel to the project area and present a significant, immediate health hazard to those within the project area. The likelihood of such an evacuation is low.

In the unlikely event that the entire project area needs to be evacuated as quickly as possible, the projects at 505 and 557 E. Bayshore would increase project area ETEs by approximately 20 to 30 minutes depending on the scenario. When only the project at 505 E. Bayshore is considered, there is no increase to existing evacuation times. The estimated time it would take to evacuate the project area with both projects after receiving an evacuation order would be between 110 minutes to 175 minutes, as shown in Table 3.9-6. An increase to ETEs, however, does not necessarily create a safety risk. As discussed above, evacuations can be implemented in advance of an impending hazard, can be targeted to only portions of the project area, and can be phased to prioritize evacuation of those portions of the project area based on risk.

In addition, the condition of the roadways that would be utilized to evacuate the area are very good and it is highly unlikely that an evacuation of the project area would be impeded due to roadway failure. Bair Island Road was reconstructed in 2012 and 2015 and East Bayshore Road has a Pavement Condition Index of 80. CalTrans has also informed the City that the Whipple Street bridge is in good condition. As discussed in the Public Services section, the project does not have a significant impact on fire or police response times.

Furthermore, the applicant has offered, and will be conditioned to provide, an Emergency Preparedness and Evacuation Plan that will state that all project evacuation procedures will be conducted according to the City of Redwood City and County of San Mateo's evacuation plans and

fire department procedures and include signage identifying the emergency access routes and shelter in place locations.

Impact Determination

The analysis of emergency evacuation impacts was completed in coordination with the Community Development Department and Fire Department. The Police Department also reviewed the results of the analysis. After a thorough review of the analysis and all relevant information, the City has determined that it is extremely unlikely for a scenario to occur where complete evacuation of the project area is needed in a short amount of time with no advanced warning, and where sheltering in place would not be a viable emergency response strategy. As a result, an adequate emergency response in the project area is unlikely to require immediate and complete evacuation in a short amount of time. Additionally, due to the variability and unpredictability of emergency scenarios, and the range of required emergency responses to those scenarios, there is no established evacuation time benchmark applicable to the project area against which the estimated evacuation times could be compared.

Based on an evaluation of the likelihood and severity of the potential emergency scenarios, the applicable and appropriate evacuation/people management options for each scenario, the available evacuation routes, and estimated evacuation times, the City departments responsible for preparing for and responding to emergency events have determined that adequate emergency response and emergency evacuation can be achieved at the project site and in the surrounding area. **(Less than Significant Impact)**

Impact HAZ-7:	The project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. **(No Impact)**

The project site is not within a state or locally designated fire hazard severity zone; therefore, the project would not expose people or structures directly or indirectly to a significant risk of loss, injury, or death involving wildland fires. **(No Impact)**

3.9.2.2 *Cumulative Impacts*

Impact HAZ-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant hazards and hazardous materials impact. **(Less than Significant Cumulative Impact)**

The geographic area for cumulative hazards and hazardous materials impacts is the project site and immediate vicinity.

Three offsite listings of potential environmental concern, 525 East Bayshore Road, 503 Whipple Avenue, and 504 Whipple Avenue, involved hazardous materials. These sites are in the project vicinity and could contribute to a cumulative impact. However, neither 525 East Bayshore Road nor 504 Whipple Avenue constitute an active ongoing environmental condition. Remedial actions have been completed under the regulatory oversight of SMCEHD for 503 Whipple Avenue, which is an

open LUST site, from 1991 to the present. In consideration of the regulatory status of these offsite listings and the less than significant hazard and hazardous material impacts of the proposed development, the project would not result in a cumulatively considerable contribution to a significant hazards and hazardous materials impact.

The proposed project and the pending project at the adjacent 557 E. Bayshore Road property may have overlapping construction activities. Hazardous materials are potentially present in the soils on both sites. However, both the proposed project and the pending project located at 557 E. Bayshore Road include mitigations measures that would prevent the release of hazardous materials into the environmental during construction, reducing any potential cumulative impacts to a less than significant level.

The analysis of emergency evacuation impacts under Impact HAZ-6 evaluated a cumulative scenario where the entire project area would require evacuation, including the proposed projects on the project site and adjacent property at 557 E. Bayshore Road. The analysis determined that adequate emergency response and emergency evacuation can be achieved at the project site and in the surrounding area. As a result, the project would not result in or contribute substantially to a cumulative impact related to emergency evacuation. **(Less than Significant Cumulative Impact)**

3.10 HYDROLOGY AND WATER QUALITY

3.10.1 Environmental Setting

3.10.1.1 *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 Environmental Protection Agency (EPA) and the State Water Resources Control Board (SWRCB) have been developed to fulfill the requirements of this legislation. 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 project site is within the jurisdiction of the San Francisco Bay RWQCB.

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 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) in Alameda, Contra Costa, San Mateo, and Santa Clara Counties, and the cities of Fairfield, Suisun City, and Vallejo.[66] 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 flowcontrolled reservoir, or, in a catchment that drains to channels that are tidally influenced; or (3) the project is located in a catchment or subwatershed that is highly developed (i.e., that is 70 percent or more impervious).[67]

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.[68] 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 1955 and 1978 that are proposed for demolition must be screened for the presence of PCBs prior to the issuance of a demolition permit.

[66] MRP Number CAS612008

[67] 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.

[68] San Francisco Bay Regional Water Quality Control Board. *Municipal Regional Stormwater Permit, Provision C.12.* November 19, 2015.

Dam Safety

Since August 14, 1929, the State of California has regulated dams to prevent failure, safeguard life, and protect property. The California Water Code entrusts dam safety regulatory power to California Department of Water Resources, Division of Safety of Dams (DSOD). The DSOD provide oversight to the design, construction, and maintenance of over 1,200 jurisdictional sized dams in California.[69]

Construction Dewatering Waste Discharge Requirements

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

Redwood City General Plan

The General Plan includes policies for the purpose of avoiding or mitigating impacts from planned development in the City. The policy below is specific to hydrology and water quality and applicable to the proposed project.

Policy	Description
Built Environment	
BE-24.8	Support building designs that assist with the management of storm water runoff, preserve and enhance soil permeability, and reduce other negative effects of urban development.

Redwood City Municipal Code

The Redwood City Municipal Code, Chapter 27A, sets forth the Redwood City Stormwater Management and Discharge Control Program (SMDCP). The SMDCP discusses exempted activities, illicit discharge prohibitions, broad watercourse protection objectives, green infrastructure, and best management practices for new and redevelopment projects. It also refers to the NPDES regulations for stormwater protection and treatment.

Redwood City Zoning Ordinance

Section 32.12 of the City's Zoning Ordinance provides requirements related to stormwater treatment. The purpose of these requirements is to provide zoning standards that minimize the quantity of runoff and associated pollutants in stormwater runoff from developed sites to creeks, the storm drain system, and ultimately, to the San Francisco Bay. According to the City's Zoning Ordinance, enhanced stormwater quality can be achieved through reduction of impervious surfaces, the protection of watercourses and riparian vegetation, providing for infiltration of stormwater on-site through vegetation and soils, and with engineered treatment systems. This section also requires that all new development, additions, and reconstruction are subject to the provisions of Chapter 27A of the City's Municipal Code.

[69] California Department of Water Resources, Division of Safety of Dams. https://water.ca.gov/Programs/All-Programs/Division-of-Safety-of-Dams#:~:text=Since%20August%2014%2C%201929%2C%20the,Safety%20of%20Dams%20(DSOD). Accessed February 3, 2022.

3.10.1.2 *Existing Conditions*

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. Urban stormwater runoff often contains contaminants such as oil and grease, plant and animal debris (e.g., leaves, dust, animal feces, etc.), pesticides, litter, and heavy metals. In sufficient concentration, these pollutants have been found to adversely affect the aquatic habitats to which they drain. The project site currently contains existing storm drain infrastructure which captures the runoff from the site and empties into the muted tidal drainage ditch on the northern property boundary and flows into the San Francisco Bay.[70] Water collected by the storm drain system contains varying amounts of non-point source pollutants associated with urban uses (e.g., oil, litter, brake dust, pesticides, herbicides, etc.).

Groundwater

The project site is located within the Santa Clara Valley groundwater basin and the San Mateo groundwater sub-basin.[71] Groundwater in the project area ranges from three to 9.5 feet below the ground surface.[72] The depth to groundwater can vary due to factors such as variations in rainfall, temperature, runoff, irrigation, and groundwater withdrawal and/or recharge. The regional topographic gradient is generally north northeast towards the bay. The site is not within an area used for in-stream or other groundwater recharge.[73]

Stormwater Drainage

The site is in the Cordilleras Creek watershed.[74] The nearest waterway is Smith Slough. The Smith Slough is located north of the site and connects to Redwood Creek and Steinberger Slough, which both discharge into the San Francisco Bay.

Currently, approximately 33,201 square feet (or 30 percent) of the project site is pervious and the remaining 77,441 square feet (or 70 percent) is impervious. The project site currently contains existing storm drain infrastructure which captures the runoff from the site and empties into the muted tidal drainage ditch on the northern property boundary and flows into the San Francisco Bay.[75] The Redwood City Public Works Services Department maintains the storm drainage system which serves the project site. Stormwater in Redwood City is conveyed into creeks, lined channels, storm drainage pipes and retention basins, all of which drain directly into San Francisco Bay.

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[70] Langan Engineering and Environmental Services, Inc. Phase I Environmental Site Assessment 505 East Bayshore Road. July 9, 2019.
[71] California Department of Water Resources. *A Comprehensive Groundwater Protection Evaluation for the South San Francisco Bay Basins.* May 2003. Figure 9.
[72] Langan Engineering and Environmental Services, Inc. Preliminary Geotechnical Evaluation 505 East Bayshore Road. September 12, 2018.
[73] City of Redwood City. *2015 Urban Water Management Plan*. June 2016. Page 36.
[74] County of San Mateo Public Works. "Watersheds of San Mateo County." Accessed January 19, 2022. https://publicworks.smcgov.org/watersheds-san-mateo-county
[75] Langan Engineering and Environmental Services, Inc. Phase I Environmental Site Assessment 505 East Bayshore Road. July 9, 2019.

Flooding, Tsunami, and Seiche

Flooding

According to the FIRM prepared by FEMA for the project area the site is located within Zone AE. Zone AE is defined as areas subject to inundation by the one percent annual chance flood event, also known as the 100-year base flood. The current site elevation is approximately seven feet above mean sea level[76]. The flood elevation listed for Zone AE is ten feet above mean sea level.[77]

Tsunami and Seiche

The project site is not within the County of San Mateo Tsunami Evacuation Planning Area or an area subject to seiche.[78]

3.10.2 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:
    a. result in substantial erosion or siltation on- or off-site;
    b. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
    c. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
    d. 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?

[76] Langan Engineering and Environmental Services, Inc. Phase I Environmental Site Assessment 505 East Bayshore Road. July 9, 2019.
[77] Federal Emergency Management Agency. Flood Insurance Rate Map, Community Panel No. 06081C0301F. Map. Effective Date: April 5, 2019.
[78] California Emergency Management Agency, California Geological Survey and University of Southern California. *Tsunami Inundation Map for Emergency Planning Redwood Point Quadrangle/Palo Alto Quadrangle*. Map. June 15, 2009.

3.10.2.1 *Project Impacts*

Impact HYD-1:	The project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. **(Less than Significant Impact)**

Construction Impacts

Implementation of the project would result in ground disturbance of the site and would temporarily increase pollutant loads due to grading and construction (i.e., removal of pavement and construction of new structures). Demolition, soil excavation, and construction activities would temporarily increase the amount of debris on-site and grading activities would increase the potential for erosion and sedimentation that could be carried by runoff into the Smith Slough and the San Francisco Bay.

The project would disturb more than one acre and, therefore, is required to comply with the General Construction Permit (which includes preparation of a SWPPP) and MRP (including Provision C.12) to reduce pollutants in surface runoff from the site during construction to a less than significant level. In addition, in accordance with the City's grading permit requirements, the project would be required to prepare an erosion control plan. The erosion control plan would include locations and specifications of recommended soil stabilization techniques such as the use of straw wattles, silt fences, construction berms, and storm drain inlet protection. For these reasons, the project would not result in substantial water quality impacts during construction. **(Less than Significant Impact)**

Post-Construction Impacts

The project would contribute similar types of stormwater runoff pollutants as the existing use. With the implementation of the project, impervious surfaces would increase from 77,441 square feet (or 70 percent) to 78,786 (or 71 percent). An increase of one percent, or slightly over 1,300 square feet, is miniscule. Therefore, the project would not result in a significant increase in surface runoff from the site compared to existing conditions.

Because the project would create and/or replace more than 5,000 square feet of impervious surface area, the project is required to comply with the MRP, City Municipal Code, and City Zoning Ordinance to implement site design, source control, and on-site treatment control measures to reduce post-construction water quality impacts to a less than significant level. Project stormwater treatment measures include vegetated bioretention areas, permeable paving, and flow-through treatment planters. Conformance with the applicable regulations protect water quality and reduce water quality impacts to a less than significant level. **(Less than Significant Impact)**

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

Groundwater is not used as a source of municipal water supply in Redwood City. As discussed in Section 3.18, the City receives potable water from the Hetch Hetchy regional water system. The

project does not propose to pump groundwater or install groundwater extraction wells. As discussed in Section 3.9, construction excavation could potentially require dewatering. Therefore, the project would implement mitigation measure MM HAZ-1.1 to establish procedures for dewatering of construction excavations and/or dewatering of excavated sediments prior to off-hauling (if required), consistent with federal, state, and local regulations. In addition, as discussed in Section 3.10.1.2, the project site is not within an area used for in-stream or other groundwater recharge. For these reasons, the project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge. **(Less than Significant Impact)**

Impact HYD-3:	The project would not 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. **(Less than Significant Impact)**

The project would not alter the course of a stream, river, or other waterway. As discussed under Impact HYD-1, the project would not result in a significant increase in surface runoff from the site compared to existing conditions. In addition, the current site elevation of seven feet above mean sea level would be increased to three feet above the Federal Emergency Management Agency (FEMA) base flood elevation of 10 feet above mean sea level to protect from tidal flooding and sea level rise. The placement of fill within an area inundated by San Francisco Bay tides does not change the elevation of the tide and therefore does not impede or redirect tidal flooding. Since the flooding that would occur on site is tidal, not riparian, the project would not impede or redirect flood flows. In addition, as discussed under Impact HYD-1, the project would comply with existing regulations to reduce stormwater runoff water quality impacts to a less than significant level. **(Less than Significant Impact)**

Impact HYD-4:	The project would not risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones. **(Less than Significant Impact)**

The project site is not within a tsunami inundation area or subject to a seiche. A seiche is the resonant oscillation of water generated in an enclosed body of water, such as San Francisco Bay, from seismic activity. Seiches are related to tsunamis for enclosed bays, inlets, and lakes. These tsunami-like waves can be generated by earthquakes, subsidence or uplift of large blocks of land, submarine and onshore landslides, sediment failures and volcanic eruptions. The strong currents associated with these events may be more damaging than inundation by waves. The largest seiche wave ever measured in the San Francisco Bay, following the 1906 earthquake, was four inches high. The Bay Area has not been adversely affected by seiches during its history within this seismically active

region of California.[79] The project site is not within the County of San Mateo Tsunami Evacuation Planning Area. Therefore, the risk of inundation of seiche at the project site is low; therefore, there would be no risk of release of pollutants at the project site due to tsunamis or seiches. **(No Impact)**

The project site is located within Zone AE. The project site is subject to coastal flooding from San Francisco Bay during a 100-year flood event. The flood elevation listed for the site is ten feet above mean sea level. The current site elevation of seven feet above mean sea level would be increased by three feet above the Federal Emergency Management Agency (FEMA) base flood elevation to protect from tidal flooding and sea level rise.

Operation of the proposed project would include the use and storage of cleaning supplies, maintenance chemicals, and herbicides and pesticides for landscape maintenance in small quantities, which would be stored and contained in accordance with regulations to prevent accidental release (refer to Section 3.9 for additional details). For this reason, the project would not risk release of pollutants due to project flooding. **(Less than Significant Impact)**

Impact HYD-5:	The project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. **(Less than Significant Impact)**

As discussed under Impacts HYD-1 and HYD-2, the project would comply with applicable water quality control regulations and would not substantially decrease groundwater supplies or interfere with groundwater recharge. **(Less than Significant Impact)**

3.10.2.2 *Cumulative Impacts*

Impact HYD-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant hydrology and water quality impact. **(Less than Significant Cumulative Impact)**

The geographic area for cumulative hydrology and water quality impacts is the Cordilleras Creek watershed, which the project site is located within.

Water Quality

Build out of the cumulative projects would comply with all applicable General Plan policies regarding stormwater runoff, infrastructure, and flooding. Cumulative projects would be required to comply with applicable regulations including the Construction General Permit, MRP, City Municipal Code, and City Zoning Ordinance to avoid hydrology and water quality impacts or reduce them to a less than significant level. Because all projects, including the proposed project, are required to comply with applicable water quality regulations, the project would not have a considerable contribution to a significant cumulative impact. **(Less than Significant Cumulative Impact)**

[79] US Army Corps of Engineers San Francisco District, Port of Oakland. *Oakland Harbor Navigation Improvement (-50 foot) Project SCH No. 97072051 Final Environmental Impact Statement/Report*, May 1998, updated January 2000.

Groundwater

As discussed under Impact HYD-2, the project does not propose to pump groundwater or install groundwater extraction wells. As discussed in Section 3.9, construction excavation could potentially require dewatering. Therefore, the project would implement mitigation measure MM HAZ-1.1 to establish procedures for dewatering of construction excavations and/or dewatering of excavated sediments prior to off-hauling (if required), consistent with federal, state, and local regulations. For these reasons, the project would not have a considerable contribution to a significant cumulative impact to groundwater supplies or recharge. **(Less than Significant Cumulative Impact)**

Storm Drain System

As discussed under Impact HYD-3, the project would not result in a significant increase in discharge into the existing local and downstream storm drain system serving the project and other cumulative projects contributing to the same mains and lines. **(Less than Significant Cumulative Impact)**

Flooding, Tsunami, and Seiche

As discussed under Impact HYD-4, hazardous materials on-site (cleaning supplies, maintenance chemicals, and herbicides and pesticides for landscape maintenance) would be stored properly to prevent accidental release in the event of a flood. In addition, the project site is not subject to tsunamis or seiches. For these reasons, the project would not contribute to a significant cumulative impact from a release of pollutants due to inundation. **(Less than Significant Cumulative Impact)**

3.11 LAND USE AND PLANNING

3.11.1 Environmental Setting

3.11.1.1 *Regulatory Framework*

Local

Redwood City General Plan

The General Plan includes policies for the purpose of avoiding or mitigating impacts from planned development in the City. The policies below are specific to land use and are applicable to the proposed project.

Policy	Description
The Built Environment	
BE-2.1	Create complete neighborhoods by integrating schools, parks, childcare centers, community centers, infrastructure, green spaces and parks, and other public amenities into each neighborhood.
BE-2.8	Make efforts to maintain and increase walking access to a variety of neighborhood destinations by encouraging uses that provide access to services, goods, and community facilities within and near neighborhoods. Figure BE-8, Walking Shed Map, maps baseline accessibility to neighborhood destinations.
BE-6.2	Create new connections to commercial uses, schools, parks and recreational areas, and transit from Post-War Neighborhoods.
Building Community	
BC-4.4	Locate new community facilities in neighborhoods and centers where they will serve populations of the greatest needs. Look for opportunities to create joint-use community space at facilities owned by private organizations such as faith-based groups, service clubs, banks and hospitals.

Redwood City Zoning Ordinance

The purpose of the City's Zoning Ordinance is to protect the public health, safety, and welfare of the people and property of Redwood City and to implement the General Plan.

3.11.1.2 *Existing Conditions*

The site is currently developed with several corrugated metal warehouse buildings and outdoor storage facilities associated with an existing industrial facility. The remainder of the site is an undeveloped vacant lot. The site is bordered by E. Bayshore Road to the west, a car dealership to the south, an unoccupied former movie theater property to the east, and Smith Slough and Bair Island to the north.

The City's General Plan designates the project site as *Commercial Regional*, and the site is zoned *CG – Commercial General*.

Commercial-Regional land uses are intended for general retail, commercial services, restaurants, lodging, vehicle sales and service, commercial recreation, professional offices, medical and financial institutions, and other similar business activities. Development standards for *Commercial-Regional* parcels permit a maximum intensity of 1.0 FAR and a maximum height of five stories within the U.S. Route 101 corridor and three stories in all other locations.

The *Commercial General* zoning designation designates land for commercial uses which do not specialize in serving the pedestrian shopper but rather, because of the character of their product or service, are more appropriately located along thoroughfares or away from the central shopping districts where more land is available or where special facilities can be provided for the performance of their function. Development standards for *Commercial General* parcels permit a maximum height of 75 feet and restricts lot coverage to no more than 60 percent building coverage. The zoning does not permit residential uses.

The project proposes a General Plan Amendment to *Mixed Use – Waterfront Neighborhood* and a rezoning to *MUWF – Mixed Use Waterfront.*

3.11.2 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?

3.11.2.1 *Project Impacts*

Impact LU-1:	The project would not physically divide an established community. **(Less than Significant Impact)**

Examples of projects that have the potential to physically divide an established community include new freeways and highways, major arterial streets, and railroad lines. The project, which proposes to construct a residential development consisting of 56 townhouses, does not include construction of dividing infrastructure.

Conversely, the proposed development includes improvements that would enhance community connectivity, including pathways throughout the site and a public trail for bicyclists and pedestrians along the northern boundary of the site to expand and enhance public access along the shoreline and to existing pedestrian facilities in the project area. These improvements are consistent with the General Plan policies regarding the Built Environment, as described under Section 3.11.1.1. Therefore, the project would not physically divide the established community. **(Less than Significant Impact)**

Impact LU-2:	The project would not 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. **(Less than Significant Impact)**

Currently, the project site consists of several corrugated metal warehouse buildings and outdoor storage facilities associated with an existing industrial facility, as well as an undeveloped vacant lot. The project site is currently designated *RC – Commercial Regional* under the City of Redwood City's General Plan, adopted in 2010, and *CG –General Commercial* under the City's zoning ordinance.

The 56 residential units introduced by the proposed development would not be consistent with uses allowed under the site's current zoning and general plan designation. Therefore, the project proposes a General Plan Amendment to *Mixed Use – Waterfront Neighborhood* and a rezoning to *MUWF – Mixed Use Waterfront*. The 56 residential units introduced by the proposed development would be consistent with the proposed *Mixed-Use – Waterfront Neighborhood* land use designation, which permits 40 dwelling units per acre[80] and does not prescribe maximum heights, as heights are evaluated relative to property size and terrain, surrounding uses and character, and orientation towards the water, with heights increasing further away from the water's edge. The 56 residential units introduced by the proposed development would be consistent with the proposed MUWF zoning, which permits up to 40 dwelling units per acre under the bonus standard with community benefits[81].

While the project would include a General Plan Amendment and a rezoning, the original land use designation and zoning were not adopted for the purpose of avoiding or mitigating an environmental effect, and therefore the changes in land use designation/zoning would not cause a significant environmental impact. The environmental impacts resulting from the proposed project and the site's changes in land use designation/zoning are analyzed and mitigated throughout this analysis to less than significant levels. Additionally, with the proposed General Plan Amendment to *Mixed Use – Waterfront Neighborhood* and rezoning to *MUWF*, the project would be consistent with the City's Municipal Code and General Plan. Based on the discussion above, the project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purposes of avoiding or mitigating an environmental effect. **(Less than Significant Impact)**

[80] City of Redwood City. *Redwood City General Plan*. October 2010.
[81] City of Redwood City. *Redwood City Municipal Code, Article 57.4*.

3.11.2.2 *Cumulative Impacts*

Impact LU-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant land use and planning impact. **(Less than Significant Cumulative Impact)**

The geographic area for cumulative land use impacts is the City's boundaries.

Construction of the cumulative projects within the City would consist primarily of redevelopment of currently (or previously) developed sites. Development on a number of these sites would result in a change of uses and/or an intensification of development.

All development projects in Redwood City, including the proposed project, are subject to conformance with applicable land use plans (including the General Plan) for the purposes of avoiding or mitigating environmental effects. In addition, the setback, design, and operational requirements of the Municipal Code minimize land use compatibility issues. The cumulative projects, in conformance with the applicable General Plan goals and policies, would not result in significant cumulative land use compatibility impacts or conflict with a policies or regulation adopted for the purpose of avoiding or mitigating an environmental impact. For these reasons, the cumulative projects, combined with the proposed project, would not result in significant cumulative land use impacts. **(Less Than Significant Cumulative Impact)**

3.12 MINERAL RESOURCES

3.12.1 Environmental Setting

3.12.1.1 *Regulatory Framework*

State

Surface Mining and Reclamation Act

The Surface Mining and Reclamation Act (SMARA) was enacted by the California legislature in 1975 to address the need for a continuing supply of mineral resources, and to prevent or minimize the negative impacts of surface mining to public health, property, and the environment. As mandated under SMARA, the State Geologist has designated mineral land classifications in order to help identify and protect mineral resources in areas within the state subject to urban expansion or other irreversible land uses which would preclude mineral extraction. SMARA also allowed the State Mining and Geology Board (SMGB), after receiving classification information from the State Geologist, to designate lands containing mineral deposits of regional or statewide significance.

3.12.1.2 *Existing Conditions*

The project site is located in Mineral Resource Zone One, which is defined as areas where adequate information indicates no significant mineral deposits are present or where it is judged that little likelihood exists for their presence.[82] There are no known mineral resources located on or adjacent to the project site.

3.12.2 Impact Discussion

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

- Result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state?
- Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

3.12.2.1 *Project Impacts*

Impact MIN-1:	The project would not result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state. **(No Impact)**

The project site does not contain any known or designated mineral resources. The project, therefore, would not result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state. **(No Impact)**

[82] California Department of Conservation. *Generalized Mineral Land Classification Map of the South San Francisco Bay Production-Consumption Region.* 1996.

Impact MIN-2:	The project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. **(No Impact)**

The project site is not delineated in the General Plan or other land use plan as a locally important mineral resource recovery site. For this reason, the project would not result in the loss of availability of locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. **(No Impact)**

3.12.2.2 *Cumulative Impacts*

Impact MIN-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant mineral resources impact. **(No Cumulative Impact)**

Since the project would not result in impacts to mineral resources, the project would not contribute to a cumulative impact to mineral resources. **(No Cumulative Impact)**

3.13 NOISE

The following discussion is based in part on a Noise and Vibration Assessment prepared for the project by Illingworth & Rodkin in August 2022. A copy of the report is attached to this Environmental Impact Report as Appendix I.

3.13.1 Environmental Setting

3.13.1.1 *Regulatory Framework*

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.[83] 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.

[83] L_{eq} is a measurement of average energy level intensity of noise over a given period of time. 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}.

3.13.1.2 *Regulatory Framework*

Federal

Federal Transit Administration Vibration Limits

The Federal Transit Administration (FTA) has developed vibration impact assessment criteria for evaluating vibration impacts associated with transit projects. The FTA has proposed vibration impact criteria based on maximum overall levels for a single event. The impact criteria for groundborne vibration are shown in Table 3.13-1 below. These criteria can be applied to development projects in jurisdictions that lack vibration impact standards.

Table 3.13-1: Groundborne Vibration Impact Criteria

Land Use Category	Groundborne Vibration Impact Levels (VdB inch/sec)		
	Frequent Event	**Occasional Events**	**Infrequent Events**
Category 1: Buildings where vibration would interfere with interior operations	65	65	65
Category 2: Residences and buildings where people normally sleep	72	75	80
Category 3: Institutional land uses with primarily daytime use	75	78	83

Source: Federal Transit Administration. *Transit Noise and Vibration Assessment Manual.* September 2018.

State

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.

Local

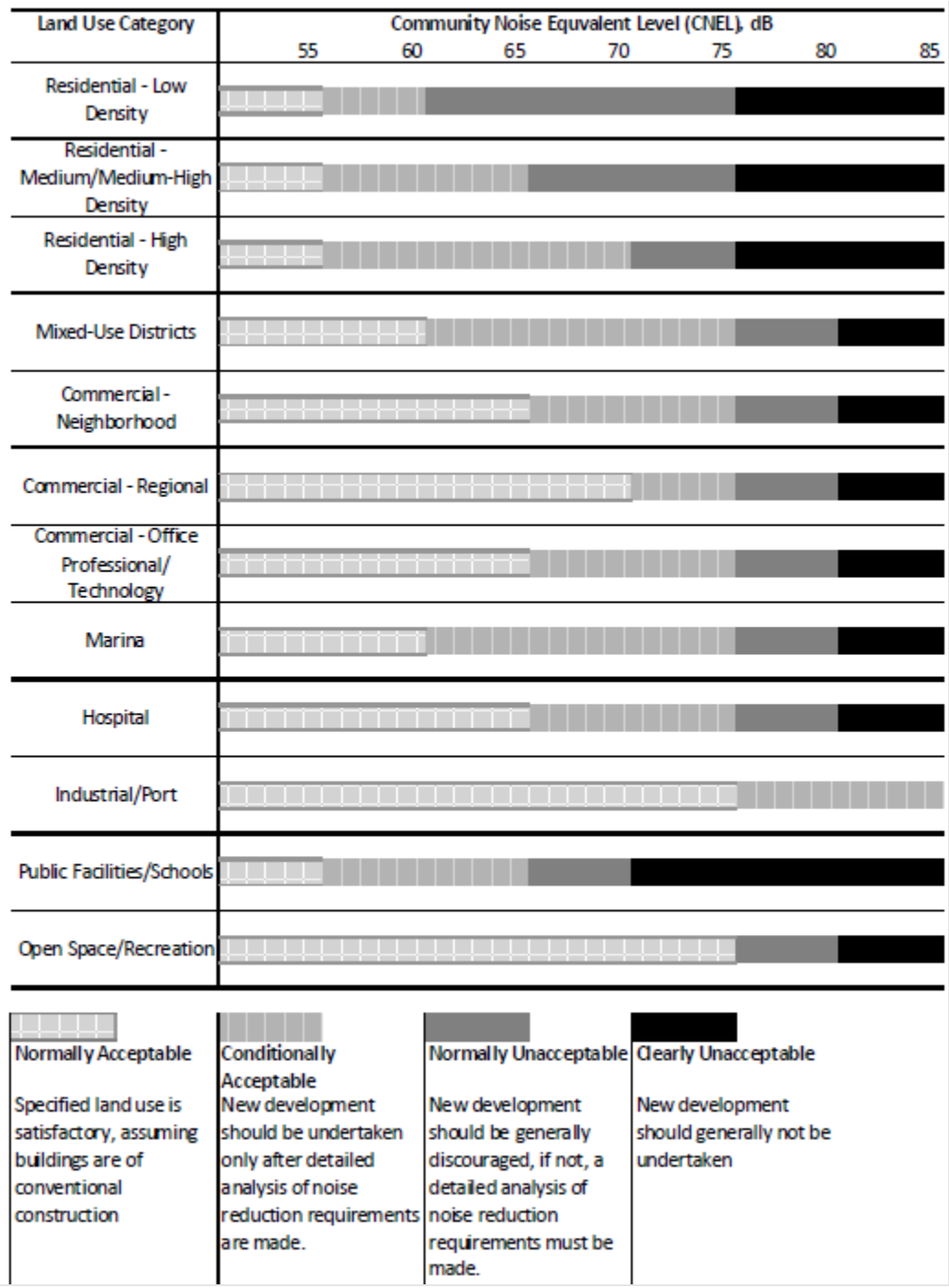
Redwood City General Plan

The General Plan identifies noise and land use compatibility standards for various land uses and establishes policies to control noise within the community. The City's noise and land use compatibility guidelines are shown in Table 3.13-2.

The General Plan also includes policies for the purpose of avoiding or mitigating impacts from planned development in the City. The policies below are specific to noise and are applicable to the proposed project.

Policy	Description
Public Safety	
PS-13.3	Consider noise impacts as part of the development review process, particularly the location of parking, ingress/egress/loading, and the refuse collection areas relative to surrounding residential development and other noise-sensitive land uses.
PS-13.4	In accordance with the Municipal Code and noise standards contained in the General Plan, strive to provide a noise environment that is at an acceptable noise level near schools, hospitals, and other noise-sensitive areas.
PS-13.5	Limit the hours of operation at all noise generation sources that are adjacent to noise-sensitive areas, wherever practical.
PS 13.6	Require all exterior noise sources (construction operations, air compressors, pumps, fans, and leaf blowers) to use available noise suppression devices and techniques to bring exterior noise down to acceptable levels that are compatible with adjacent land uses.
PS-13.8	Implement appropriate standard construction noise controls for all construction projects.
PS-13.9	Require noise created by new non-transportation noise sources to be mitigated so as not to exceed acceptable interior and exterior noise level standards.
PS-13.10	Do not allow new residential or other noise sensitive land use development in noise impacted areas unless effective mitigation measures are incorporated into the project design to reduce outdoor activity area noise levels.

Table 3.13-2: General Plan Noise Guidelines for Land Use Planning



Source: Redwood City. *Redwood City General Plan.* Adopted October 2010 and amended October 2014. Page PS-72.

In addition, General Plan Program PS-63 requires enforcement of standard construction noise controls such as:

- Limit construction to the hours of 8:00 a.m. to 5:00 p.m. on weekdays, and 9:00 a.m. to 5:00 p.m. on Saturdays, with no noise-generating construction on Sundays or holidays.
- Control noise from construction workers' radios to the point where they are not audible at existing residences that border the project site.
- Equip all internal combustion engine-driven equipment with mufflers that are in good condition and appropriate for the equipment.
- Utilize quiet models of air compressors and other stationary noise sources where technology exists.
- Locate stationary noise-generating equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction project area.
- Prohibit unnecessary idling of internal combustion engines.
- Notify residents adjacent to the project site of the construction schedule in writing.

City of Redwood City Municipal Code Noise Regulation

The City's Municipal Code establishes noise level performance standards assemblages of three or more persons, as well as for fixed sources of noise. The following sections from the Municipal Code apply to this project:

Section 24.31. Prohibited Noise Levels. It shall be unlawful for any person to suffer or allow noise levels to be generated by:

i. Construction activities, including demolition, alteration, repair or remodeling of or to existing structures and construction of new structures on property within the City, at more than 110 dB measured at any point within a residential district of the City and outside of the plane of said property; or

ii. An individual item of machinery, equipment or device used during construction activities, including demolition, alteration, repair or remodeling of or to existing structures and construction of new structures on property within the City, at more than 110 dB measured within a residential district of the City at a distance of twenty-five feet (25') from said machinery, equipment or device. If said machinery, equipment or device is housed within a structure on the property, then the measurement shall be made at a distance as near to twenty-five feet (25') from said machinery, equipment or device as possible.

Section 24.32. Time Limitations. Notwithstanding the provisions in this Division to the contrary, it shall be unlawful for any person to engage in construction activities, including demolition, alteration, repair or remodeling of or to existing structures and the construction of new structures on property in a residential district or within five hundred feet (500') of a residential district in the City, between the hours of eight o'clock (8:00) p.m. and seven o'clock (7:00) a.m. the following day, Monday through Friday of any week or at any time on Saturdays, Sundays, or holidays if the noise level generated by any such activity exceeds the local ambient measured at any point within the residential district and outside of the plane of said property.

For the purposes of Sections 24.31 and 24.32 of the Redwood City Municipal Code, a "residential district" is defined as the RH, R-1, R-2, RG, R-3, R-4, R-5 and MH Zoning Districts. The Mixed-Use Waterfront zoning district is not a "residential district" for the purposes of these noise regulations.

3.13.1.3 *Existing Conditions*

The noise environment in the project vicinity results primarily from vehicular traffic along nearby U.S. Route 101 (US 101). Vehicular traffic along East Bayshore Road, bicycle and pedestrian activities along the trail, and local car dealership and industrial activities also contribute to the noise environment in areas adjacent to these activities. Overhead aircraft associated with the San Carlos Airport periodically result in high maximum noise levels.

A noise monitoring survey was conducted at the project site Wednesday, February 16, 2022 through Friday, February 18, 2022. One long-term noise measurements (LT-1) and four short-term noise measurements (ST-1 through ST-4) were made as part of this monitoring survey.

Long-term noise measurement LT-1 was located along East Bayshore Road, just south of the project site. The measurement was positioned approximately 330 feet north of the centerline of US 101 and approximately 30 feet east of the centerline of East Bayshore Road. The primary noise source at this location was vehicular traffic along US 101 and East Bayshore Road. Hourly average noise levels at this location typically ranged from 67 to 73 dBA L_{eq} during the day and from 59 to 71 dBA L_{eq} at night. The community noise equivalent level on Thursday, February 17, 2022 was 75 dBA CNEL.

Short-term noise measurements ST-1 through ST-4 were conducted on Wednesday, February 16, 2022 in a 10-minute intervals starting at 11:30 a.m. and concluding at 12:40 p.m. Table 3.13-3 summarizes the results for the short-term measurements.

Table 3.13-3: Short-term Noise Measurement Results

Noise Measurement Location	Measured Noise Level, dBA					
	L_{max}	$L_{(1)}$	$L_{(10)}$	$L_{(50)}$	$L_{(90)}$	L_{eq}
ST-1: Northeastern corner of the site, ~795' from the centerline of US 101 (2/16/2022, 11:30 – 11:40 a.m.)	54	53	51	50	49	50
ST-2: Southern boundary of the site, ~570' from the centerline of US 101 (2/16/2022, 11:50 a.m. – 12:00 p.m.)	69	65	56	52	51	55
ST-3: Northwestern corner of the site, ~615' from the centerline of US 101 (2/16/2022, 12:10 – 12:20 p.m.)	71	67	64	60	55	61
ST-4: Southwestern corner of the site, ~465' from the centerline of US 101 (2/16/2022, 12:30 – 12:40 p.m.)	85	77	70	64	58	67

Short-term noise measurements ST-1 was made near the northeastern corner of the project site, approximately 795 feet north of US 101, approximately 500 feet east of East Bayshore Road, and

approximately 75 feet south of the bicycle/pedestrian path. The 10-minute $L_{eq(10\text{-}min)}$ measured at ST-1 was 50 dBA. Distant vehicular traffic along US 101 was the primary noise source at this location (48 to 50 dBA), with occasional overhead aircraft associated with the San Carlos Airport contributing to the noise levels (52 to 54 dBA).

Short-term noise measurement ST-2 was made at the southern boundary of the project site, near the car dealership. ST-2 was approximately 570 feet north of US 101 and approximately 300 feet east of East Bayshore Road. The 10-minute $L_{eq(10\text{-}min)}$ measured at ST-2 was 55 dBA $L_{eq(10\text{-}min)}$. Distant vehicular traffic along US 101 was the primary noise source at this location, with occasional overhead aircraft (58 to 68 dBA), helicopter noise (54 to 68 dBA), and pressure washer noise from the car dealership (52 to 54 dBA) contributing to the noise levels.

Short-term noise measurement ST-3 was made at the northwestern corner of the project site, along East Bayshore Road and near the bicycle/pedestrian path. ST-3 was approximately 615 feet north of US 101, approximately 45 feet east of East Bayshore Road, and approximately 85 feet south of the bicycle/pedestrian path. The 10-minute $L_{eq(10\text{-}min)}$ measured at ST-3 was 61 dBA $L_{eq(10\text{-}min)}$. Vehicular traffic along East Bayshore Road was the main noise source at this measurement site (62 to 72 dBA), with background vehicular traffic noise from US 101 and occasional overhead aircraft contributing to the noise levels.

Short-term noise measurement ST-4 was made at the southwestern corner of the project site, along East Bayshore Road and near the car dealership to the south. ST-4 was approximately 465 feet north of US 101, and approximately 40 feet east of East Bayshore Road. The 10-minute $L_{eq(10\text{-}min)}$ measured at ST-4 was 67 dBA $L_{eq(10\text{-}min)}$. Vehicular traffic along East Bayshore Road was the main noise source at this measurement site (62 to 85 dBA), with background vehicular traffic noise from US 101 and occasional overheard aircraft contributing to the noise levels.

3.13.2 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?

3.13.2.1 *Project Impacts*

Impact NOI-1:	The project would not 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. **(Less than Significant Impact)**

Temporary Construction Noise Increase

Noise impacts resulting from construction depend upon the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise-sensitive areas. Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (e.g., early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise-sensitive land uses, or when construction lasts over extended periods of time.

Maximum instantaneous noise levels generated by typical construction equipment at 50 feet are provided in Table 3.13-4. The typical range of maximum instantaneous noise levels for the proposed project would be 70 to 90 dBA L_{max} at a distance of 50 feet from the equipment, and 76 to 96 dBA L_{max} at a distance of 25 feet from the equipment when adjusting for the shorter distance between the noise source and receptor. Typical hourly average construction-generated noise levels for construction of various types of facilities are shown in Table 3.13-5. Hourly average noise levels generated by construction are about 65 to 88 dBA L_{eq} for residential buildings, measured at a distance of 50 feet from the center of a busy construction site. Construction-generated noise levels drop off at a rate of about six dBA per doubling of the distance between the source and receptor. Shielding by buildings or terrain often result in lower construction noise levels at distant receptors.

Table 3.13-4: Construction Equipment 50-Foot Noise Emission Limits

Equipment Category	L_{max} Level (dBA)[1,2]	Impact/Continuous
Arc Welder	73	Continuous
Auger Drill Rig	85	Continuous
Backhoe	80	Continuous
Bar Bender	80	Continuous
Boring Jack Power Unit	80	Continuous
Chain Saw	85	Continuous
Compressor[3]	70	Continuous
Compressor (other)	80	Continuous
Concrete Mixer	85	Continuous
Concrete Pump	82	Continuous
Concrete Saw	90	Continuous
Concrete Vibrator	80	Continuous

Table 3.13-4: Construction Equipment 50-Foot Noise Emission Limits		
Equipment Category	**L_{max} Level (dBA)[1,2]**	**Impact/Continuous**
Crane	85	Continuous
Dozer	85	Continuous
Excavator	85	Continuous
Front End Loader	80	Continuous
Generator	82	Continuous
Generator (25 KVA or less)	70	Continuous
Gradall	85	Continuous
Grader	85	Continuous
Grinder Saw	85	Continuous
Horizontal Boring Hydro Jack	80	Continuous
Hydra Break Ram	90	Impact
Impact Pile Driver	105	Impact
Insitu Soil Sampling Rig	84	Continuous
Jackhammer	85	Impact
Mounted Impact Hammer (hoe ram)	90	Impact
Paver	85	Continuous
Pneumatic Tools	85	Continuous
Pumps	77	Continuous
Rock Drill	85	Continuous
Scraper	85	Continuous
Slurry Trenching Machine	82	Continuous
Soil Mix Drill Rig	80	Continuous
Street Sweeper	80	Continuous
Tractor	84	Continuous
Truck (dump, delivery)	84	Continuous
Vacuum Excavator Truck (vac-truck)	85	Continuous
Vibratory Compactor	80	Continuous
Vibratory Pile Driver	95	Continuous
All other equipment with engines larger than 5 HP	85	Continuous

[1] Measured at 50 feet from the construction equipment, with a "slow" (1 sec.) time constant.

[2] Noise limits apply to total noise emitted from equipment and associated components operating at full power while engaged in its intended operation.

[3]Portable Air Compressor rated at 75 cfm or greater and that operates at greater than 50 psi

Table 3.13-4: Construction Equipment 50-Foot Noise Emission Limits		
Equipment Category	**L_{max} Level (dBA)[1,2]**	**Impact/Continuous**

Table 3.13-5: Typical Ranges of Construction Noise Levels at 50 Feet, L_{eq} (dBA)								
	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

I - All pertinent equipment present at site.
II - Minimum required equipment present at site.

Section 24.31 of the City's Municipal Code restricts construction activities to 110 dBA at any time within residential districts and limits noise produced by any individual piece of construction equipment used within a residential district to no more than 110 dBA at a distance of 25 feet or as near to 25 feet as possible if the equipment is enclosed within a structure on the property. Section 24.32 states that construction activities would be unlawful in a residential district or within 500 feet of a residential district between the hours of 8:00 p.m. and 7:00 a.m. Monday through Friday or at any time on weekends or holidays if the noise level generated by any construction activity exceeds local ambient noise levels within the residential district. Policy PS 13.6 of the City's General Plan requires all exterior noise sources, including construction operations, to use available noise suppression devices and techniques and Policy PS-13.8 requires construction projects to implement appropriate standard construction noise. Program PS-63 enforces standard construction noise controls to minimize noise from construction activities. These include the following:

- Limit construction to the hours of 8:00 a.m. to 5:00 p.m. on weekdays, and 9:00 a.m. to 5:00 p.m. on Saturdays, with no noise-generating construction on Sundays or holidays.
- Control noise from construction workers' radios to the point where they are not audible at existing residences that border the project site.
- Equip all internal combustion engine-driven equipment with mufflers that are in good condition and appropriate for equipment.
- Utilize quiet models of air compressors and other stationary noise sources where technology exists.

- Locate stationary noise-generating equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction project area.
- Prohibit unnecessary idling of internal combustion engines.
- Notify residents adjacent to the project site of the construction schedule in writing.

Project construction is anticipated to begin as early as July 2022 and be completed as early as December 2023, lasting approximately 18 months. During each phase of construction there would be a different mix of equipment operating. Equipment expected to be used in each construction phase is summarized in Table 3.13-6, along with the quantity of each type of equipment, the reference noise level at 50 feet assuming the operation of the two loudest pieces of construction equipment, and the estimated noise levels at the nearest property lines projected from the center of the construction activity by phase. The levels in Table 3.13-6 were calculated for the project using the Federal Highway Administration Roadway Construction Noise Model.

Table 3.13-6: Calculated Construction Noise Levels at Nearby Land Uses (dBA L_{eq})

Phase (Work Days)	Construction Equipment (Quantity)	Calculated Hourly Average L_{eq} (dBA) at Nearest Property Lines From Operation of Two Loudest Pieces of Construction Equipment at Acoustic Center of the Site				
		Noise Level at 50 feet	North Trail (150 feet)	East Potential Future Residential 557 E. Bayshore Road Development (215 feet)	South Commercial (75 feet)	West Trail (520 feet)
Demolition (5 days)	Concrete/ Industrial Saw (1)* Excavator (1) Rubber-Tired Dozer (1)* Tractor/Loader/ Backhoe (1)	84	74	71	80	64
Site Preparation (16 days)	Grader (1)* Rubber-Tired Dozer (1) Tractor/Loader/ Backhoe (1)*	84	74	71	80	64
Grading/ Excavation (44 days)	Excavator (1) Grader (1)* Rubber Tired Dozer (1) Tractor/Loader/ Backhoe (1)*	84	74	71	80	64

Table 3.13-6: Calculated Construction Noise Levels at Nearby Land Uses (dBA L_{eq})						
Phase (Work Days)	**Construction Equipment (Quantity)**	**Calculated Hourly Average L_{eq} (dBA) at Nearest Property Lines From Operation of Two Loudest Pieces of Construction Equipment at Acoustic Center of the Site**				
		Noise Level at 50 feet	**North Trail (150 feet)**	**East Potential Future Residential 557 E. Bayshore Road Development (215 feet)**	**South Commercial (75 feet)**	**West Trail (520 feet)**
Trenching/ Foundation (21 days)	Tractor/Loader/ Backhoe (1)* Excavator (1) * Concrete/ Industrial Saw (1)* Plate Compactor (1)*	85	75	72	81	65
Building – Exterior (128 days)	Air Compressor (2) Forklift (1) Tractor/Loader/ Backhoe (1)*	81	71	68	77	61
Building – Interior/ Architectural Coating (151 days)	Air Compressor (2)* Forklift (1)	77	67	64	73	57
Paving (22 days)	Cement and Mortar Mixer (1) Paver (1) Paving Equipment (1)* Roller (1) Tractor/Loader/ Backhoe (1)*	82	72	69	68	62
*Denotes two loudest pieces of construction equipment per phase						

As shown in Table 3-13-6, construction noise levels would intermittently range from 77 to 85 dBA L_{eq} when activities occur approximately 50 feet from nearby receptors, and would typically range from 57 to 81 dBA L_{eq} when focused near the acoustic center of the project site. Construction noise levels would not exceed the 110 dBA construction noise level threshold set forth by Section 24.31 of the City's Municipal Code. With implementation of Municipal Code limitations and the standard construction noise controls provided in Program-63 of the General Plan, the project would have a less than significant construction noise impact. **(Less than Significant Impact)**

Permanent Noise Level Increase

A significant permanent noise increase would occur if the project were to increase noise levels at noise-sensitive receptors by three dBA CNEL or greater where future ambient noise levels exceed the "normally acceptable" noise level standard. Where future ambient noise levels would remain below the "normally acceptable" noise level standard, noise level increases of five dBA CNEL or greater would be considered significant. According to Figure PS-10 of the City's General Plan, 60 dBA CNEL would be the "normally acceptable" noise level threshold for mixed-use waterfront uses, and 65 dBA CNEL would be the "normally acceptable" noise level threshold for commercial-regional uses. Since existing ambient noise levels in the vicinity of the project site exceed 65 dBA CNEL, it is expected that ambient noise levels would continue to exceed 65 dBA CNEL under future conditions. Therefore, a significant impact would occur if traffic due to the proposed project would permanently increase ambient levels by three dBA CNEL. For reference, a three dBA CNEL noise increase would be expected if the project would double existing traffic volumes along a roadway.

The traffic study completed for the proposed project includes peak hour traffic turning movements for six intersections in the vicinity of the project site. The existing plus project traffic scenario was compared to the existing traffic scenario to estimate the noise level increase due to the project-generated traffic. Based on the results of the calculations, the traffic noise increase due to the project would be less than 0.5 dBA during the a.m. and p.m. peak hours. CNEL noise level increases would be less, given the proximity of the site to US 101, which is the major noise source affecting the project area. Such traffic noise increases would not be noticeable and would be below the three dBA CNEL threshold of significance. Additionally, the project does not include mechanical equipment for project operation that would have substantial noise impacts, such as emergency backup generators. **(Less than Significant Impact)**

Impact NOI-2:	The project would not result in generation of excessive groundborne vibration or groundborne noise levels. **(Less than Significant Impact)**

The construction of the project may generate perceptible vibration when heavy equipment or impact tools (e.g. jackhammers, hoe rams) are used. Construction activities would include site demolition, site preparation work, grading, trenching, building construction, and paving. Foundation construction techniques involving impact or vibratory pile driving equipment, which can cause excessive vibration, are not expected to be used. Critical factors pertaining to the impact of construction vibration on sensitive receptors include the proximity of the existing structures to the project site, the soundness of the structures, and the methods of construction used.

For structural damage, the California Department of Transportation recommends a vibration limit of 0.5 in/sec PPV as the threshold at which there is a risk of damage to new residential and modern commercial/industrial structures. Cosmetic damage (also known as threshold damage) is defined as hairline cracking in plaster, the opening of old cracks, the loosening of paint, or the dislodging of loose objects. Minor damage is defined as hairline cracking in masonry or the loosening of plaster. Major structural damage is defined as wide cracking or the shifting of foundation or bearing walls.

Table 3.13-7 shows the calculated vibration levels from construction equipment at distances representative of the nearest structures in the site vicinity. Project construction activities, such as

drilling, the use of jackhammers, rock drills and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.) may generate substantial vibration in the immediate vicinity. Vibration levels would vary depending on soil conditions, construction methods, and equipment used. Vibration levels are highest closest to the source, and then attenuate with increasing distance.

Table 3.13-7: Vibration Levels for Construction Equipment (in/sec PPV)					
Equipment		**South Commercial (15 feet)**	**South Commercial (155 feet)**	**Southeast Commercial (195 feet)**	**East Commercial (30 feet)**
Clam shovel drop		0.354	0.027	0.021	0.165
Hydromill (slurry wall)	in soil	0.014	0.001	0.001	0.007
	in rock	0.030	0.002	0.002	0.014
Vibratory Roller		0.368	0.028	0.022	0.172
Hoe Ram		0.156	0.012	0.009	0.073
Large bulldozer		0.156	0.012	0.009	0.073
Caisson drilling		0.156	0.012	0.009	0.073
Loaded trucks		0.133	0.010	0.008	0.062
Jackhammer		0.061	0.005	0.004	0.029
Small bulldozer		0.005	0.000	0.000	0.002

All structures in the project vicinity would be located 15 feet or more from the primary work area, and groundborne vibration levels attributable to project construction would not exceed the 0.5 in/sec PPV threshold for conventional buildings. Neither cosmetic, minor, or major damage would be expected. At the locations disclosed in Table 3.13-7, and in other surrounding areas where vibration would not be expected to cause cosmetic damage, vibration levels may still be perceptible. However, as with any type of construction, this would be anticipated and would not be considered a significant impact, given the intermittent and short duration of the phases that have the highest potential of producing vibration (use of jackhammers and other high-power tools). **(Less than Significant Impact)**

Impact NOI-3: The project would not be 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. The project would not expose people residing or working in the project area to excessive noise levels. **(Less than Significant Impact)**

San Carlos Airport is a public airport located about 1.1 miles northwest of the project site. According to the 2035 noise contours for the airport, which are included in the Comprehensive Airport Land Use Compatibility Plan for the Environs of San Carlos Airport, the project site falls outside the 60 dBA CNEL noise contour. While aircraft flyovers may at times be audible at the outdoor use areas on the project site, noise levels due to aircraft would not exceed 60 dBA CNEL, and therefore, both the exterior and interior noise levels resulting from aircraft would be compatible with the proposed project. This is a less than significant impact. **(Less than Significant Impact)**

3.13.2.2 *Cumulative Impacts*

Impact NOI-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant noise impact. **(Less than Significant Cumulative Impact)**

The geographic area for cumulative construction noise impacts is the immediate project vicinity, specifically within 1,000 feet of the project site. Cumulative projects within 1,000 feet of the project site could contribute to the same noise impacts as the proposed project.

Temporary Construction Noise and Vibration

The proposed development project at 557 East Bayshore Road would be constructed within 1,000 feet of the project site and could contribute to the same cumulative noise impacts as the proposed project. The 557 East Bayshore project is still under environmental review; however, assuming the 557 East Bayshore project and the proposed project receive their respective approvals, a worst-case scenario assuming an overlapping construction schedule of the two projects was assumed. In this scenario, overall construction noise levels could increase by up to three dBA above those shown in Table 3.13-6. However, construction noise levels would not exceed the 110 dBA noise limit at adjacent properties. Additionally, all projects within Redwood City would be required to adhere to limitations of construction hours specified in the City's General Plan and Municipal Code and would be required to follow the standard construction noise controls provided in Program PS-63 of the General Plan. With adherence to these noise controls, the cumulative noise exposure from the two projects would be less than significant. **(Less than Significant Cumulative Impact)**

Cumulative Traffic Noise

Cumulative traffic noise could also result from the traffic generated by the project when added to the traffic generated by other reasonably foreseeable projects. Cumulative traffic conditions were also reviewed to determine if the proposed project would make a cumulatively considerable contribution to significant traffic noise increases expected in the area. A significant cumulative traffic noise increase would occur if two criteria are met: 1) if the cumulative traffic noise level increase was three dBA CNEL or greater for future levels exceeding 60 dBA CNEL or was five dBA CNEL or greater for future levels at or below 60 dBA CNEL; and 2) if the project would make a "cumulatively considerable" contribution to the overall traffic noise increase. A "cumulatively considerable" contribution would be defined as an increase of one dBA CNEL or more attributable solely to the proposed project. The cumulative plus project traffic scenario was compared to the cumulative traffic scenario and traffic noise levels were calculated to increase by less than one dBA CNEL. **(Less than Significant Cumulative Impact)**

As described previously, the operational noise from the project would be well below existing ambient noise levels in the project area. As a result, project operation would not result in or contribute substantially to a cumulative noise impact. **(Less than Significant Cumulative Impact)**

3.14 POPULATION AND HOUSING

3.14.1 Environmental Setting

3.14.1.1 *Regulatory Framework*

State

Housing-Element Law

State requirements mandating that housing be included as an element of each jurisdiction's general plan is known as housing-element law. The Regional Housing Need Allocation (RHNA) is the state-mandated process to identify the total number of housing units (by affordability level) that each jurisdiction must accommodate in its housing element. California housing-element law requires cities to: 1) zone adequate lands to accommodate its RHNA; 2) produce an inventory of sites that can accommodate its share of the RHNA; 3) identify governmental and non-governmental constraints to residential development; 4) develop strategies and a work plan to mitigate or eliminate those constraints; and 5) adopt a housing element and update it on a regular basis.[84] The City of Redwood City Housing Element and related land use policies were last updated in November 2014.

Regional and Local

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.[85]

The Association of Bay Area Governments (ABAG) allocates regional housing needs to each city and county within the San Francisco Bay Area, based on statewide goals. These allocations are designed to lay the foundation for Plan Bay Area 2050's long-term envisioned growth pattern for the region. ABAG also develops a series of forecasts and models to project the growth of population, housing units, and jobs in the Bay Area. ABAG, the San Mateo County Metropolitan Transportation Commission (MTC), and local jurisdiction planning staff created the Forecasting and Modeling Report, which is a technical overview of the of the growth forecasts and land use models upon which Plan Bay Area 2050 is based.

[84] California Department of Housing and Community Development. "Regional Housing Needs Allocation and Housing Elements" Accessed January 11, 2022. http://hcd.ca.gov/community-development/housing-element/index.shtml.

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

3.14.1.2 *Existing Conditions*

According to the California Department of Finance, the 2021 population of Redwood City was 85,182 residents.[86] In 2021, there were 31,561 households with an average of 2.77 persons per household.[87]

The jobs/housing balance is the relationship between the number of housing units required as a result of local jobs and the number of residential units available in the City. This relationship is quantified by the jobs/employed resident ratio. When the ratio reaches 1.0, a balance is struck between the supply of local housing and local jobs. The jobs/employed resident ratio is determined by dividing the number of local jobs by the number of employed residents that can be housed in local housing. The jobs/employed residents' ratio for Redwood City in 2010 was 1.65, which means that there were 1.65 jobs for every employed resident in the City[88].

There are currently no residents or housing units on-site.

3.14.2 Impact Discussion

For the purpose of determining the significance of the project's impact on population and housing, would the project:

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

3) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

3.14.2.1 *Project Impacts*

Impact POP-1:	The project would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). **(Less than Significant Impact)**

The project proposes to construct 56 townhouses, of which 51 would be base density units and five would be bonus density units. Eight of the units would be sold at moderate below market levels. The proposed project is anticipated to house approximately 156 residents.[89]

[86] California Department of Finance. E-1: City/County Population Estimates with Annual Percent Change. January 1, 2020 and 2021. May 2021.
[87] State of California, Department of Finance. E-5 Population and Housing Estimates for Cities, Counties, and the State—2011-2021 with 2010 Census Benchmark. May 2021. https://www.dof.ca.gov/Forecasting/Demographics/Estimates/e-5/
[88] Association of Bay Area Governments. Projections 2013.
[89] This was estimated by multiplying Redwood City's average persons per household of 2.77 by the proposed number of units. The City's average person per household is sourced from the California's Department of Finance's *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2021 with 2010 Census Benchmark.*

The project site is currently designated *RC – Commercial Regional* under the City of Redwood City's General Plan, adopted in 2010, and *CG –General Commercial* under the City's zoning ordinance. The project proposes a General Plan Amendment to *Mixed Use – Waterfront Neighborhood* and a rezoning to *MUWF – Mixed Use Waterfront*. Development standards for the *Mixed-Use Waterfront Neighborhood* designation permit a maximum residential density of 40 dwelling units per acre, which the project would comply with. Although the project would amend the General Plan to allow additional residential development in the City, an increase of 56 dwelling units is not substantial in relation to the overall planned growth in the City. Development of the project site would also not result in an expansion of urban services. The project's incremental increase in residential density would not result in a substantial increase in the City's current or projected population. The project would not extend a road or other infrastructure that would indirectly induce growth. Based on the above discussion, the project would not induce substantial unplanned population growth in an area, either directly or indirectly. **(Less than Significant Impact)**

Impact POP-2:	The project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. **(No Impact)**

The project site does not currently include residents or housing units and, therefore, the project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. **(No Impact)**

3.14.2.2 *Cumulative Impacts*

Impact POP-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant population and housing impact. **(Less than Significant Cumulative Impact)**

The geographic area for cumulative population and housing impacts is the City's boundaries. The project would not induce substantial unplanned population growth or displace residents or housing. For these reasons, the project would not have a cumulatively considerable contribution to significant cumulative unplanned population growth in the area. **(Less than Significant Cumulative Impact)**

3.15 PUBLIC SERVICES

3.15.1 Environmental Setting

3.15.1.1 *Regulatory Framework*

State

Government Code Section 66477

The Quimby Act (included within Government Code Section 66477) requires local governments to set aside parkland and open space for recreational purposes. It provides provisions for the dedication of parkland and/or payment of fees in lieu of parkland dedication to help mitigate the impacts from new residential developments. The Quimby Act authorizes local governments to establish ordinances requiring developers of new residential subdivisions to dedicate parks, pay a fee in lieu of parkland dedication, or perform a combination of the two.

Government Code Section 65995 through 65998

California Government Code Section 65996 specifies that an acceptable method of offsetting a project's effect on the adequacy of school facilities is the payment of a school impact fee prior to the issuance of a building permit. Government Code Sections 65995 through 65998 set forth provisions for the payment of school impact fees by new development by "mitigating impacts on school facilities that occur (as a result of the planning, use, or development of real property" (Section 65996[a]). The legislation states that the payment of school impact fees "are hereby deemed to provide full and complete school facilities mitigation" under CEQA (Section 65996[b]).

Developers are required to pay a school impact fee to the school district to offset the increased demands on school facilities caused by the proposed residential development project. The school district is responsible for implementing the specific methods for mitigating school impacts under the Government Code.

Regional and Local

Redwood City General Plan

The General Plan includes policies for the purpose of avoiding or mitigating impacts from planned development in the City. The policies below are specific to public service resources and are applicable to the proposed project.

Policy	Description
Building Community	
BC-4.1	Maintain multi-functional, flexible, and complementary space at Redwood City's community buildings and centers.
BC-8.3	Consult with private and public community service organizations to coordinate educational and community services, including childcare/early education, classes to learn English, after-school programs, and recreational activities.

Public Services	
PS-11.1	Work with the Police Department to determine and meet community needs for law enforcement services.
PS-11.2	Work with the Fire Department to determine and meet community needs for fire protection and related emergency services.

Regarding response time goals, the Redwood City Fire Department (Fire Department) has a goal of responding to emergency calls within five to seven minutes and the Redwood City Police Department (Police Department) has a goal of responding to emergency calls and arriving on-scene within five minutes. [90]

3.15.1.2 *Existing Conditions*

Fire Protection Services

The Fire Department is responsible for fire prevention and suppression, medical response, and property protection within the City boundaries. While the Fire Department is the official fire service provider in the City, automatic aid is provided by the California Department of Forestry and Fire Protection and fire departments from adjacent cities including Menlo Park, Woodside, Belmont, and San Carlos. These fire departments participate in the Greater Alarm Plan, which is a countywide response plan that allows continuous coverage from the closest dispatch unit within San Mateo County.

The Fire Department includes seven fire stations housing seven engines, one truck, one battalion chief and currently has over 90 staff members including firefighters, firefighter/paramedics, captains, battalion chiefs, fire prevention staff, training staff, and administrative staff.[91]

The nearest fire station to the project site is Station 9 located at 755 Marshall Street, approximately one mile south of the site.

Police Protection Services

The Police Department headquarters is located at 1301 Maple Street, approximately 1.5 miles southeast of the project site. The Police Department is comprised of 96 sworn officers, 36 civilian employees, four reserve officers, and 25 volunteers.[92]

Schools

The project site is located within the Redwood City Elementary School District (RCSD) and Sequoia Union High School District. Local public schools in the project area include Taft Elementary School located approximately 4.2 miles southeast at 903 10th Avenue, Kennedy Middle School located

[90] Redwood City. *Redwood City General Plan.* Adopted October 11, 2010 and amended October 20, 2014. Page PS-49.
[91] Redwood City. "About the Department." https://www.redwoodcity.org/departments/fire-department/about-the-department. Accessed January 13, 2022.
[92] Redwood City. "About Us." https://www.redwoodcity.org/departments/police-department/about-us. Accessed January 13, 2022.

approximately 3.6 miles south at 2521 Goodwin Avenue, and Redwood High School located approximately 1.1 miles southwest at 1968 Old County Road.

Park Facilities

Redwood City has approximately 228 acres of park facilities including mini-parks, neighborhood parks, community parks, special use parks, and sports fields on public school property. Parks in the sphere of influence contribute an additional 7.5 acres, for a total of about 236 acres of developed parkland citywide. [93] The City has a goal of providing active and passive park space at a ratio of three acres per 1,000 residents.[94] The City's current parkland ratio is 2.77 acres per 1,000 residents, which is below the City's goal.[95]

Library Facilities

Redwood City operates and maintains its own library system, which includes four libraries. The Redwood City Public Library is a member of the Peninsula Library System, a group of 34 public and community college libraries in San Mateo County. The libraries have meeting rooms and adjacent outdoor areas that community groups use for activities and events. The nearest library to the project site is the Main Downtown Library located at 1044 Middlefield Road, approximately 1.2 miles south of the project site.

3.15.2 Impact Discussion

For the purpose of determining the significance of the project's impact on public services, would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

- Fire protection?
- Police protection?
- Schools?
- Parks?
- Other public facilities?

[93] City of Redwood City. *Harbor View Project Draft Environmental Impact Report.* January 2019. Page 4.12-3.
[94] Redwood City. *Redwood City General Plan.* Adopted October 11, 2010 and amended October 20, 2014. Page BC-11.
[95] The parkland ratio was calculated using the population estimate of 85,182 (California Department of Finance. E-1: City/County Population Estimates with Annual Percent Change. January 1, 2020 and 2021. May 2021).

3.15.2.1 *Project Impacts*

Impact PS-1:	The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection services. **(Less than Significant Impact)**

Project implementation would intensify use of the project site compared to existing conditions and could incrementally increase the associated demand for fire protection services. As of 2008, the average response time to emergency calls was four minutes and 43 seconds, which is under the established response time goal of five to seven minutes established in 2010.[96] Recent correspondence with the Fire Department identified a current Department goal response time of four minutes, which is met on average.[97] As the project site is one mile from Fire Station 9, no response time issues are anticipated that would necessitate construction of a new fire station.

Buildout of the Redwood City General Plan was anticipated to increase the City's population by 19 percent[98] (approximately 14,681 residents[99]) without necessitating additional fire department facilities or personnel.[100] Based on Redwood City's average household size, the project would increase the City's population by approximately 156 residents, an incremental increase in comparison with anticipated growth.[101] As the necessity of new or altered facilities is not anticipated, no future construction resulting in substantial adverse physical impacts is expected. **(Less than Significant Impact)**

Impact PS-2:	The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection services. **(Less than Significant Impact)**

Project implementation would intensify use of the project site compared to existing conditions and could incrementally increase the associated demand for police protection services. As of 2008, the average response time to emergency calls was 2.22 minutes, well under the established response time

[96] City of Redwood City. *A New General Plan for Redwood City Draft Environmental Impact Report*. May 2010.
[97] Personal Communication. Geoff Balton, Battalion Chief. September 18, 2020.
[98] City of Redwood City. *Redwood City General Plan*. October 2010.
[99] Redwood City's reported population in the General Plan as of 2007 was 77,269; 19 percent of the 2007 population is approximately 14,681.
[100] City of Redwood City. *A New General Plan for Redwood City Draft Environmental Impact Report*. May 2010.
[101] This was estimated by multiplying Redwood City's average persons per household of 2.77 by the proposed number of units. The City's average person per household is sourced from the California's Department of Finance's *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2021 with 2010 Census Benchmark.*

goal of five minutes or less.[102] As the project site is 1.5 miles from the police station, no response time issues are anticipated.

No plans to construct new police facilities (i.e. substations) or hire additional personnel and staff was identified by the Redwood City General Plan EIR as required to maintain acceptable service ratios, response times, or other police service performance objectives. As with fire protection services, the incremental increase in demand for police protection services associated with residential development of the project site would not require future construction to maintain police protection service performance that could result in substantial adverse physical impacts is expected. **(Less than Significant Impact)**

Impact PS-3:	The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools. **(Less than Significant Impact)**

The most recent data regarding capacity and enrollment for the schools that would serve the proposed development is shown in Table 3.15-1 below.

Table 3.15-1: School Capacity and Enrollment[103,104]

School	Capacity	Enrollment
Taft Elementary School	569	514
Kennedy Middle School	1,051	790
Sequoia High School	2,200	1,571

The RCSD Long-Range Facilities Plan anticipated that 1,150 residential units would be occupied between 2015 and 2024, generating 198 students. Using the derived student generation rate of 0.17, the proposed development would contribute 10 students to the City's student body.[105] Based on the most recent data regarding school capacity and enrollment, Taft Elementary School, Kennedy Middle School, and Sequoia High School could accommodate an additional 10 students.

Additionally, state law (Government Code Section 65996) specifies that an acceptable method of offsetting a project's effect under CEQA on the adequacy of school facilities is the payment of a school impact fee prior to issuance of a Building Permit. The affected school districts are responsible for implementing the specific methods for mitigating school effects under the Government Code, including setting the school impact fee amount consistent with state law. The school impact fees and the school districts' methods of implementing measures specified by Government Code Section 65996 would offset project-related increases in student enrollment.

[102] City of Redwood City. *A New General Plan for Redwood City Draft Environmental Impact Report*. May 2010.
[103] City of Redwood City. *A New General Plan for Redwood City Draft Environmental Impact Report*. May 2010.
[104] Redwood City School District. *Long Range Facilities Plan*. May 2015.
[105] 198 divided by 1,150 produces a student generation rate of 0.17; 0.17 multiplied by 56 dwelling units equals approximately 10 students.

While the proposed project would increase the number of school children attending the public schools in the area, the project would comply with state law regarding payment of school impact fees. For this reason, the project would not result in a significant impact to local schools. **(Less Than Significant Impact)**

Impact PS-4:	The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for parks. **(Less than Significant Impact)**

When new residents are introduced to an area, usage of parks in the surrounding area can intensify. Redwood City is currently not meeting its goal of three acres per 1,000 residents. The General Plan EIR concluded that population growth resulting from General Plan buildout would not substantially deteriorate the City's existing park facilities. Although the project would amend the General Plan to allow additional residential development in the City, an increase of 56 dwelling units is not substantial in relation to the overall planned growth in the City. The project's incremental increase in residential density would not result in a substantial increase in use of existing park facilities.

To reduce the impacts of residential and mixed-use developments on park facilities, the City's zoning code requires 300 square feet of usable open space for every studio apartment or every one-bedroom dwelling unit, plus 100 square feet of usable open space for each additional bedroom within the units. Private usable open space may be substituted for common usable open space at a ratio of three square feet of private open space for every two square feet of common open space required, provided such element of open space either has an area of at least 150 square feet, with no dimension less than 10 feet, if located at ground level, or an area of at least 50 square feet, with no dimension less than six feet, if located above ground level. The project would include 12 two-bedroom units, 30 three-bedroom units, and 14 four-bedroom units, requiring a minimum of 28,200 square feet of open space.[106] Since the project proposes to provide 28,714 square feet of common open space and 2,879 square feet of private open space (31,593 square feet total), it satisfies the City's open space requirements, partially mitigating its impact on park facilities.

The applicant would also be required to pay the assessed park impact fees mandated by Municipal Code Chapter 18 Article XVI, funds which will be used for the installation, acquisition, construction and improvement of park improvements listed in the Impact Fee Project List, including the acquisition of land necessary for such improvements. Additionally, the project would provide pedestrian connections between the site and the Bay Trail, enhancing public access to trails. The combination of additional open space proposed by the project and payment of park impact fees associated with the residential development would reduce adverse physical impacts to park facilities to a less than substantial level. **(Less than Significant Impact)**

[106] 12 two-bedroom units multiplied by 400, added to 30 three-bedroom multiplied by 500 , added to 14 four-bedroom units multiplied by 600 equals 28,200 square feet.

Impact PS-5:	The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for other public facilities. **(Less than Significant Impact)**

Public facilities identified in the General Plan EIR include fire stations, police stations, schools, and libraries. Redwood City libraries currently support library programs and homework assistance to over 150,000 children and families and provide 130 computers enabling over 300,000 sessions annually. The nearest library to the project site is the Main Downtown Library, which maintains a five-star rating from the Library Journal Index of Public Library Service with the highest circulation of items in the City's library system.[107]

Increased demand for library services generated by the anticipated 156 residents introduced by the proposed development is marginal in comparison with the library system's current service population. In consideration of the library system's existing condition, adverse physical impacts caused by the proposed development on these resources would be less than substantial. **(Less than Significant Impact)**

3.15.2.2 *Cumulative Impacts*

Impact PS-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant public services impact. **(Less than Significant Cumulative Impact)**

The geographic area for cumulative public service impacts is the City's boundaries.

As described above, the project would incrementally increase demand for fire and police protection services; however, there are currently adequate fire and police department facilities to support the proposed development. Similarly, existing library facilities are capable of meeting the incremental increase in demand generated by the project.

An additional 10 students would be enrolled in Redwood City's public school system as a result of the project, which could be accommodated by the cumulative capacity of the City's school facilities. As required by state law (Government Code Section 65996), cumulative projects that include residential development (such as the project) are required to pay school fees to mitigate the increase in demand on schools generated by new development to a less than significant level. As discussed in the General Plan EIR, all new development in the City would continue to be subject to the requirements of Government Code Section 65996 to contribute fair share school impact fees, and these fees would be considered full and complete mitigation for any impacts to school facilities. With continued adherence to Government Code Section 65996 and implementation of the General Plan policies, the cumulative projects (including the proposed project) would not result in a significant cumulative impact on local schools.

[107] City of Redwood City. *A New General Plan for Redwood City Draft Environmental Impact Report*. May 2010.

New residents are not anticipated to have a significant impact on park facilities due to the construction of open space. Furthermore, the project applicant would be required to pay school and park impact fees to reduce the impact of the proposed development on these facilities.

The project would comply with all standard conditions of approval intended to reduce impacts to public services, and is subject to state, county, and city codes regulating public services. For these reasons, the project would not contribute to a significant cumulative public services impact. **(Less than Significant Cumulative Impact)**

3.16 RECREATION

3.16.1 Environmental Setting

3.16.1.1 *Regulatory Framework*

State

Government Code Section 66477

The Quimby Act (included within Government Code Section 66477) requires local governments to set aside parkland and open space for recreational purposes. It provides provisions for the dedication of parkland and/or payment of fees in lieu of parkland dedication to help mitigate the impacts from new residential developments. The Quimby Act authorizes local governments to establish ordinances requiring developers of new residential subdivisions to dedicate parks, pay a fee in lieu of parkland dedication, or perform a combination of the two.

Local

Redwood City General Plan

The General Plan includes policies for the purpose of avoiding or mitigating impacts from planned development in the City. The policies below are specific to recreational resources and are applicable to the proposed project.

Policy	Description
Building Community	
BC-1.3	Enhance street corridors, parkways, and public property between buildings to serve as functional recreation and green space.
BC-3.1	Incorporate flexible design characteristics into the renovation of existing and development of new parks and community facilities. Consider incorporating education with recreation opportunities.
BC-3.2	Continue to build, renovate, and maintain parks and community facilities in a manner that is environmentally responsible.
BC-4.1	Maintain multi-functional, flexible, and complementary space at Redwood City's community buildings and centers.
BC-4.2	Maximize public facility use by sharing with nonprofit organizations, school districts, and community organizations.
BC-6.1	Implement human service programs that are flexible and responsive to the community's changing needs.

3.16.1.2 *Existing Conditions*

As described in Section 3.15, Redwood City has approximately 228 acres of park facilities including mini-parks, neighborhood parks, community parks, special use parks, and sports fields on public school property. The City is currently below the standard at 2.77 acres per 1,000 residents. In

addition to parks, the City has four community centers, one senior center, two pool facilities, and several recreational bicycle paths, including access to the Bay Trail.

3.16.2 Impact Discussion

For the purpose of determining the significance of the project's impact on recreation:

- Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?
- Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

3.16.2.1 *Project Impacts*

Impact REC-1:	The project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. **(Less than Significant Impact)**

The project would result in 56 dwelling units and an estimated 156 residents based on Redwood City's average household size. The proposed development would provide 28,714 square feet of common open space and 2,879 square feet of private open space (31,593 square feet total), which would reduce the usage of existing parks and recreational facilities. Payment of assessed park impact fees in accordance with Chapter 18 Article XVI of the City's Municipal Code would contribute to the installation, acquisition, and construction of new recreational resources, and improvement of existing recreational resources, ensuring the project would not cause substantial physical deterioration of existing facilities. **(Less than Significant Impact)**

Impact REC-2:	The project would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. **(Less than Significant Impact)**

As discussed above, the proposed project would pay park impact fees to offset any potential impacts to recreational facilities. Any new recreational facilities constructed by the City utilizing those fees would receive CEQA environmental review prior to construction. No new off-site recreational facilities would be required to serve the population increase that would result from the project. For these reasons, the proposed project would not require the construction of new recreational facilities with the potential to adversely affect the environment. **(Less than Significant Impact)**

3.16.2.2 *Cumulative Impacts*

Impact REC-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant recreation impact. **(Less than Significant Cumulative Impact)**

Any cumulative impacts to recreation resources would occur within the City of Redwood City or in regional recreational facilities in the immediate vicinity.

To minimize the cumulative impacts of new residents on recreational resources, projects within Redwood City are required to pay park impact fees assessed in accordance with Chapter 18 of the City Municipal Code. These funds are used to acquire and construct new parks to serve future residents and to improve existing park facilities within Redwood City, thereby reducing a project's contribution to cumulative impacts on recreational resources. In addition, the proposed development includes open space on-site that would serve to reduce the need for new residents to utilize public recreational facilities. As such, no future construction or expansion of the recreational facilities in the area that would have the potential to adversely affect the recreational environment is expected based on the project's contribution. **(Less than Significant Cumulative Impact)**

3.17 TRANSPORTATION

The following discussion is based on a Transportation Analysis (TA) prepared by Hexagon Transportation Consultants, Inc. on February 7, 2022. The TA was completed in accordance with the standards set forth by the City, the San Mateo County C/CAG, and CEQA. A copy of the TA is included in Appendix J.

3.17.1 Environmental Setting

3.17.1.1 *Regulatory Framework*

State

Senate Bill 743

SB 743 establishes criteria for determining the significance of transportation impacts using a vehicle miles traveled (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 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.

Regional and Local

Regional Transportation Plan

MTC is the transportation planning, coordinating, and financing agency for the nine-county San Francisco Bay Area, including San Mateo 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.

San Mateo County Congestion Management Program

City/County Association of Governments of San Mateo County (C/CAG) is the Congestion Management Agency (CMA) for San Mateo County authorized to set state and federal funding priorities for improvements affecting the San Mateo County Congestion Management Program (CMP) roadway system.

C/CAG-designated CMP roadway system components in Redwood City include El Camino Real, Woodside Road, US Highway 101, and Interstate 280. C/CAG-designated CMP intersections in or near Redwood City include El Camino Real/Whipple Avenue, Bayfront Expressway/Marsh Road (borders Redwood City), and Woodside Road/Middlefield Road.

C/CAG has adopted guidelines to reduce the number of net new vehicle trips generated by new developments. These guidelines apply to all developments that generate 100 or more net new peak-hour vehicular trips on the CMP network.

Redwood City General Plan

The General Plan includes policies for the purpose of avoiding or mitigating impacts from planned development in the City. The policies below are specific to transportation and are applicable to the proposed project.

Policy	Description
The Built Environment	
BE-26.6	Require new development projects to provide pedestrian, bicycle, and electric bicycle/scooter facilities that connect to existing and planned pedestrian and bicycle facilities; and require large parking facilities to accommodate pedestrian, bicycle, and electric bicycle/scooter circulation.
BE-26.10	Prioritize bicycle, electric bicycle/scooter, and pedestrian safety improvements at street crossings.
BE-26.18	Maintain and encourage the use of existing pedestrian walkways that enhance pedestrian connectivity throughout the city.
BE-27.5	Require that new development and projects improve access to and accommodations for public transit.
BE-27.10	Maintain and improve access and mobility for the mobility impaired population groups such as youth, the disabled, and seniors.

Redwood City Transportation Analysis Manual

As established in the City's Transportation Analysis Manual, the City of Redwood City uses VMT as the metric to assess transportation impacts from new development. According to the policy, a residential project's transportation impact would be considered significant if the project VMT exceeds existing countywide home-based VMT per capita minus 15 percent. An office project's transportation impact would be considered significant if the project VMT exceeds existing countywide average home-based work VMT per employee minus 15 percent. The threshold for a retail project is whether it generates new net countywide VMT per service population. The cumulative threshold for the project effect on VMT is no increse to the City's per capita VMT applying the boundary method. Screening criteria have been established to determine which projects require a detailed VMT analysis. If a project meets the relevant screening criteria, it is considered to a have a less than significant VMT impact.

If a project's VMT does not meet the established thresholds, mitigation measures would be required, where feasible. The policy also requires preparation of a Local Transportation Analysis 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 recommend transportation improvements. While the City requires the preparation of a Local Transportation Analysis, the analysis is not a requirement of CEQA. The analysis is included in Appendix J for informational purposes.

Redwood City Transportation Demand Management (TDM) Ordinance

In December 2021, the City adopted a Transportation Demand Management (TDM) ordinance. The TDM ordinance requires all new development in the City that meet the following specified development thresholds to develop a TDM plan and requires annual monitoring:

- New residential development either: (1) with twenty-five (25) or more units of single or multi-family homes; or (2) with five (5) or more units and a homeowner's association.
- New Commercial Site development either: (1) of ten thousand (10,000) square feet or more; or (2) with ten (10) employees or more.

3.17.1.2 *Existing Conditions*

Roadway Network

Regional Access

Regional access to the project site is provided via the roadway described below.

United States Highway 101 (US 101) is a north/south freeway that extends from north of San Francisco to south of San Jose. In the project vicinity, US 101 has ten lanes (including two high-occupancy toll [HOT] lanes). US 101 provides site access via the full interchanges at Whipple Avenue.

Local Access

Local access to the project site is provided via the roadways described below.

Whipple Avenue is a two- to four-lane connector street that extends from US 101, west through Redwood City until its terminus at Upland Road west of Alameda de las Pulgas. Whipple Avenue is a four-lane road between Veterans Boulevard and El Camino Real, and provides access to US 101 via a full interchange. A sidewalk is present along only the south side of Whipple Avenue between Veterans Boulevard and East Bayshore Road, while bike lanes are provided in both directions. The speed limit on Whipple Avenue is 25 mph.

Woodside Road (SR 84) is a four-lane east-west boulevard that extends from US 101 in the east to Portola Road in the west through Woodside. West of Portola Road, Woodside Road becomes La Honda Road and extends all the way to Cabrillo Highway (SR 1). The speed limit on Woodside Road is 35 mph.

East Bayshore Road is a two-lane, local road that extends south from Whipple Avenue along the east side of US 101 and currently terminates at its roundabout intersection with Bair Island Road. The speed limit on this segment of East Bayshore Road is 25 mph. A sidewalk is available only on the east side of street. South of the Woodside Road, East Bayshore Road continues as a frontage road on the east side of US 101 until its intersection with Sleepy Hollow Lane near Menlo Park border. East Bayshore Road currently does not have a connection between these two segments. East Bayshore Road serves as the west boundary of the project site and provides direct access to the project site.

Veterans Boulevard is a north-south divided boulevard that provides access between US 101 and Redwood City. Veterans Boulevard begins at its connection with the southbound US 101 off ramp north of Whipple Avenue and extends south to Woodside Road where it aligns with the US 101 southbound on ramp. Between Whipple Avenue and Main Street, Veterans Boulevard has three lanes in both directions with a posted speed limit of 35 mph. Between Main Street and Chestnut Street, Veterans Boulevard has two lanes in each direction. Between Chestnut Street and Woodside Road, Veterans Boulevard has one-lane in each direction. Bike lanes are present in both directions along Veterans Boulevard between Whipple Avenue and Chestnut Street.

Maple Street is an east-west, two-lane collector that extends from its intersection with El Camino Real, through downtown Redwood City to Bair Island. Maple Street serves as the only roadway between Whipple Avenue and Woodside Road that crosses US 101 without an interchange. Bike lanes or bike "sharrows" are present along Maple Street. The City's General Plan classifies Maple Street as a pedestrian street west of Veterans Boulevard and a bicycle boulevard east of Veterans Boulevard.

Blomquist Street is a two-lane, local road that extends south from Maple Street to its intersection with Woodside Road. South of Woodside Road, Blomquist Street becomes the southern segment of East Bayshore Road. Bike lanes are present in both directions along Blomquist Street. The speed limit on Blomquist Street is 25 mph.

Pedestrian and Bicycle Facilities

Bicycle Facilities

Bicycle facilities are comprised of paths, lanes, and routes. Bicycle paths (or Class I facilities) are paved trails that are separate from roadways. Bicycle lanes (or Class II facilities) are lanes on roadways designed for bicycle use by striping, pavement legends, and signs. Bicycle routes (or Class III facilities) are roadways designated for bicycle use by signs only. The existing bicycle facilities in the project vicinity are shown in Figure 3.17-1.

The project site is served relatively well by existing bicycle facilities, which provide access between the project site and downtown Redwood City and nearby office centers. Existing bicycle facilities include Class III routes on East Bayshore Road south of Seaport Boulevard and Whipple Avenue west of Veterans Boulevard. Class II bicycle lanes in the project vicinity include:

1. Whipple Avenue at the US 101 overcrossing between Veterans Boulevard and US 101 Northbound off-ramp
2. Whipple Avenue between El Camino Real and Arguello Street

3. Maple Street between Marshall Street and Veterans Boulevard
4. Veterans Boulevard between Whipple Avenue and Chestnut Street
5. Winslow Street between Whipple Avenue and Broadway
6. Industrial Way between Harbor Boulevard and Whipple Avenue
7. Blomquist Street between Maple Street and Seaport Boulevard
8. Marshall Street between Arguello Street and Walnut Street
9. Middlefield Road between Veterans Boulevard and Bradford Street
10. Main Street between Convention Way and Veterans Boulevard
11. Brewster Avenue between Main Street and Fulton Street
12. Arguello Street between Whipple Avenue and Brewster Avenue
13. Stafford Street between Whipple Avenue and Old County Road
14. Old County Road between Stafford Street and Bransten Road (San Carlos)
15. Edgewood Road west of Alameda de las Pulgas
16. Hopkins Avenue between El Camino Real and Nevada Street

Within the vicinity of the project site, a Class I bicycle path, the Bay Trail, exists along the eastern frontage of the site. The Bay Trail can be accessed via Whipple Avenue at East Bayshore Road and via Blair Island Road. The Bay Trail is a planned, 500-mile bicycle and pedestrian trail that extends around the entire San Francisco Bay. Currently, about 350 miles of the trail have been completed. The Bay Trail does not currently provide access to areas south of the project site as it terminates at Bair Island Road. A separated Class IV bicycle facility along the south side of Bair Island Road connects the Bay Trail to an existing pedestrian and bicycle bridge, commonly referred to as the 'Bridge to Nowhere'. An unpaved pathway south of the bridge provides access between East Bayshore Road and Maple Street. The Class IV bicycle facility along the south side of Bair Island Road also connects across US 101 to the bicycle facilities west of US 101 at Main Street/Convention Way.

Based on the Citywide Transportation Plan, a Class I bike path is proposed along East Bayshore Road and on the potential Blomquist Street extension between Whipple Avenue and Seaport Boulevard. This proposed bicycle path would improve connectivity between the project site and areas to the south.

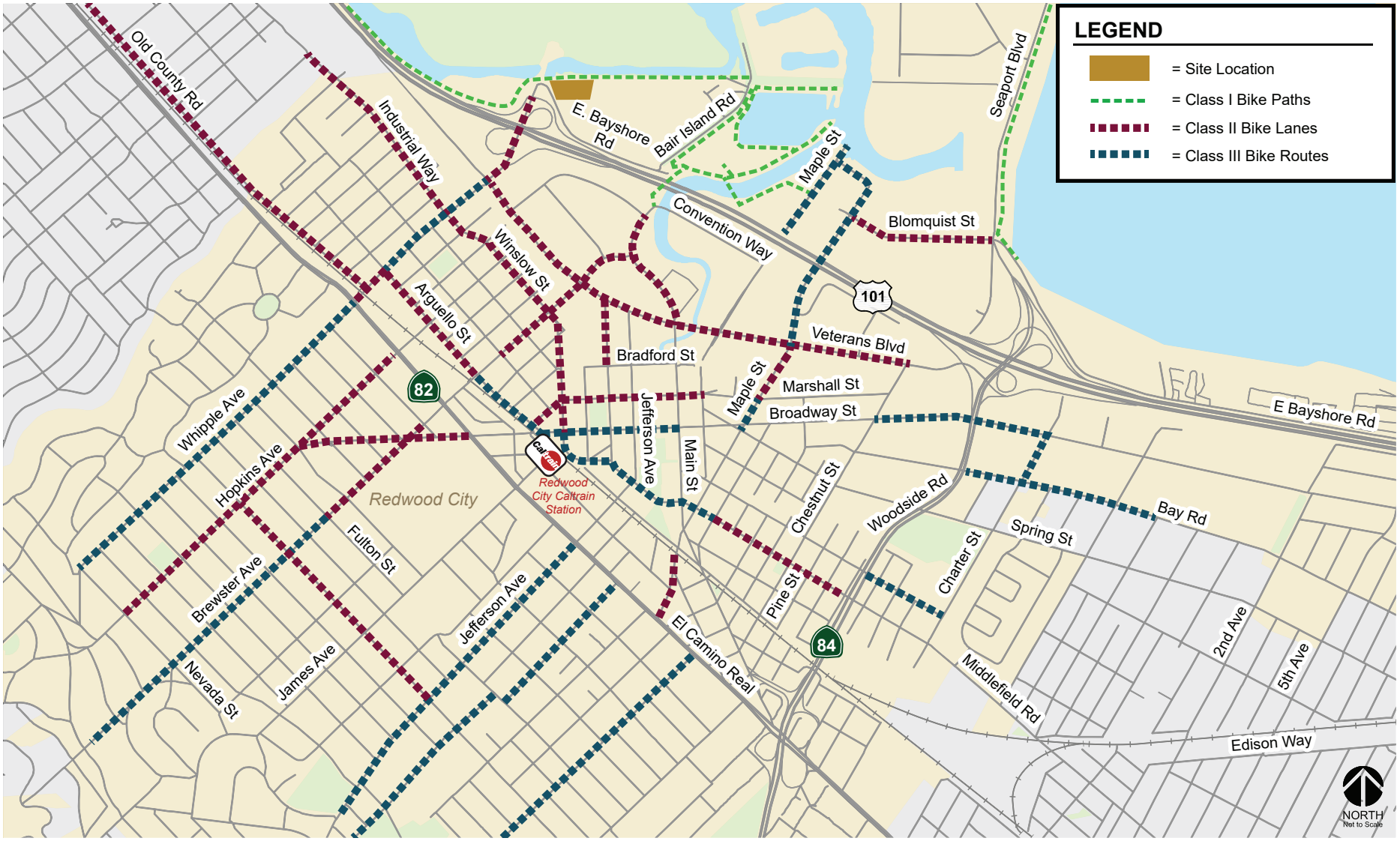
Pedestrian Facilities

Pedestrian facilities in the project vicinity include sidewalks, crosswalks, and pedestrian signals at signalized intersections. Sidewalks are not present along the project frontage nor along the nearby buildings on East Bayshore Road. Approximately 625 feet south of the project site, there is a sidewalk along the east side of East Bayshore Road, the Bay Trail, and a mixed-use trail that extends from Bair Island Road under US 101 to Convention Way and Main Street. A sidewalk is present along the south side of the Whipple Avenue overcrossing. Pedestrians crossing US 101 at Whipple Avenue can access the project site via the crosswalk on the US 101 Northbound Off Ramp, a cut-through sidewalk through the triangle area circulated by the US 101 Northbound off-ramp and East Bayshore Road, and a crosswalk with pedestrian crossing warning sign and flashing beacon at the sharp curve where East Bayshore Road turns to the south. A crosswalk also exists in the project vicinity on Bair Island Road just east of the roundabout at East Bayshore Road. This crosswalk provides access from the project site to the existing 'Bridge to Nowhere', the residential and hotel

uses on the south side of Bair Island Road, and the mixed-use trail that connects to Convention Way and Main Street.

Transit Service

The project site is not served by any existing transit routes. Primary transit service in Redwood City is provided by the San Mateo County Transit District (SamTrans). However, the nearest bus stops are located more than 0.5 miles from the site at either the Arguello Street and A Street intersection, or the Maple Street and Blomquist Street intersection (see Figure 3.17-2). The bus stops are considered beyond walking distance for most individuals.



Source: Hexagon Transportation Consultants, Inc., February 7, 2022.

EXISTING BICYCLE FACILITIES IN THE PROJECT VICINITY | FIGURE 3.17-1

Source: Hexagon Transportation Consultants, Inc., February 7, 2022.

EXISTING TRANSIT SERVICES IN THE PROJECT VICINITY | FIGURE 3.17-2

3.17.2 Impact Discussion

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

- Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle lanes, and pedestrian facilities?
- Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
- Result in inadequate emergency access?

3.17.2.1 *Project Impacts*

Impact TRN-1:	The project would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle lanes, and pedestrian facilities. **(Less than Significant Impact with Mitigation Incorporated)**

The project would be in compliance with the Redwood City Transportation Analysis Manual with incorporation of MM TRN-2.1 (see below), which requires the project to implement Travel Demand Management (TDM) measures to reduce project trips and VMT. Therefore, the project would not conflict with any programs, plans, ordinances, or policies addressing vehicle transit.

The project would generate more than 100 daily vehicle trips. Therefore, the project is subject to the C/CAG TDM Policy. However, none of the study intersections are part of the CMP roadway network, so the project is not required to evaluate compliance with CMP intersection level of service standards. Furthermore, the project is consistent with the CMP, as it includes TDM measures (refer to MM TRN-2.1).

The project would improve the pedestrian environment by providing new sidewalks along the project's East Bayshore Road frontage, and through connections between the site and the Bay Trail. As a result, the project would not conflict with any programs, plans, ordinances, or policies addressing pedestrian facilities.

The project would improve bicycle facilities in the project vicinity via a public trail constructed along the northern boundary of the site that would provide access between E. Bayshore Road and a planned public trail segment to be located on the adjacent property to the east, therefore expanding and enhancing public access along the shoreline. The project also is required to construct, the planned Class II bicycle lanes on E. Bayshore Road. This bicycle lane is identified in the Redwood City General Plan, RWCmoves Citywide Transportation Plan, and RWC Walk Bike Thrive Plan. The proposed on-street parking and bulb outs do not provide adequate room to accommodate the planned bicycle lanes. As a result, the project would conflict with the City's adopted plans for bicycle facilities on E. Bayshore Road.

Impact TRN-1: The project would conflict with adopted plans for bicycle lanes on E. Bayshore Road.

Mitigation Measures: The following mitigation measure would reduce impacts to bicycle lanes to a less than significant level:

MM TRN-1.1: The project shall redesign proposed on-street improvements along the project frontage to incorporate the planned bicycle lanes on E. Bayshore Road. The revised plans shall be submitted to the Director of the Community Development and Transportation Department for review and approval prior to issuance of the first building permit for the project.

With implementation of MM TRN-1.1, the project would not conflict with adopted plans addressing bicycle lanes.

General Plan Transportation Policies

The City's General Plan includes policies addressing transportation modes within the circulation system other than vehicles. Table 3.17-1 summarizes the project's consistency with the applicable General Plan policies.

Table 3.17-1: Project Consistency with Applicable General Plan Transportation Policies

General Plan Policy		Consistency
BE-26.6	Require new development projects to provide pedestrian, bicycle, and electric bicycle/scooter facilities that connect to existing and planned pedestrian and bicycle facilities; and require large parking facilities to accommodate pedestrian, bicycle, and electric bicycle/scooter circulation.	Based on the Citywide Transportation Plan, an enhanced Class I bicycle path connecting Chestnut Street and Seaport Boulevard is proposed along the UPRR tracks paralleling Woodside Road. Furthermore, a Class I bicycle path is proposed adjacent to the entire length of East Bayshore Road and Blomquist street. The proposed development on the adjacent property at 557 East Bayshore Road would add Class II bicycle lanes along its project frontage on East Bayshore Road. The project would extend these bike lanes towards Whipple Avenue. These proposed bicycle lanes/trails would improve connectivity between the project site and areas to the west of US 101, including to downtown Redwood City.
BE-26.10	Prioritize bicycle, electric bicycle/scooter, and pedestrian safety improvements at street crossings.	The project design does not substantially increase hazards, and would not affect street crossings. The project driveways would be free and clear of any obstructions to optimize sight distance, thereby ensuring the exiting vehicles can see pedestrians on the sidewalk and bicycles traveling along East Bayshore Road.
BE-26.18	Maintain and encourage the use of existing pedestrian walkways that	The project would improve the pedestrian environment by providing new sidewalks along the project's East Bayshore Road frontage, and

Table 3.17-1: Project Consistency with Applicable General Plan Transportation Policies		
General Plan Policy		**Consistency**
	enhance pedestrian connectivity throughout the city.	through connections between the site and the Bay Trail.
BE-27.5	Require that new development and projects improve access to and accommodations for public transit.	No transit services currently exist in the project vicinity. The project would implement TDM measures, including providing residents with information about transit routes and schedules. The project would also offer transit subsidies to residents.
BE-27.10	Maintain and improve access and mobility for the mobility impaired population groups such as youth, the disabled, and seniors.	The project would be constructed in accordance with the Americans Disability Act (ADA). The project is consistent with this policy.

The project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle lanes, and pedestrian facilities. **(Less than Significant Impact with Mitigation Incorporated)**

Impact TRN-2: The project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). **(Less than Significant Impact with Mitigation Incorporated)**

VMT is identified in CEQA Guidelines Section 15064.3 as the most appropriate measure of transportation impacts. With the exception of evaluating transportation capacity, a project's effect on automobile delay shall not constitute a significant environmental impact (CEQA Guidelines Section 15064.3[a]).

Per the Redwood City Transportation Analysis Manual, a proposed project would have a significant impact on VMT if it meets any of the following criteria:

- Residential Uses: The project generated home-based VMT per capita exceeds 10.5 miles, which is the existing countywide average home-based VMT per capita (12.3 miles) minus 15 percent.

The project's relatively remote location on the east side of US 101 next to the Bay in an area lacking transit connectivity results in a project generated VMT rate that is higher than the average Countywide VMT rate for the proposed residential use. The project generated home-based VMT per capita is 13.4, which is greater than the threshold of 10.5 for residential uses. Without measures to reduce VMT, the project would have a significant impact based on the project generated VMT.

Impact TRN-2: The project generated home-based VMT per capita is 13.4, which is greater than the threshold of 10.5 for residential uses. Without measures to reduce VMT, the project would have a significant impact based on the project generated VMT.

Mitigation Measures: The following mitigation measure would reduce VMT impacts to a less than significant level:

MM TRN-2.1: The project shall develop and implement a TDM plan sufficient to demonstrate that VMT associated with the project is reduced to a level less than or equal to 10.5 miles per capita. The following measures represent a feasible method for achieving the required VMT reduction:

1. On-site information
2. New resident orientation
3. Annual promotion of TDM measures
4. Bike racks for visitors
5. Indoor bike parking for residents
6. Land/facilities for pedestrian/bike connections
7. Caltrain/SamTrans subsidies

The TDM plan shall be submitted to and approved by the Community Development and Transportation Department, and shall be monitored annually to gauge its effectiveness in meeting the required VMT reduction. A transportation professional working at the City's direction and pursuant to a scope of work approved by the City Engineer shall conduct traffic counts annually to measure the daily and peak-hour entering and exiting vehicle volumes. The volumes will be compared to benchmarks established by the transportation professional and the City Engineer to determine whether the necessary reduction in vehicle trips is being met. The results of the annual vehicle counts will be reported in writing by the transportation professional to the Community Development and Transportation Department.

If TDM plan monitoring results show that the trip reduction targets are not being met, the TDM plan shall be updated to identify replacement and/or additional feasible TDM measures to be implemented. The updated TDM plan shall be subject to the same approvals and monitoring requirements listed above.

If monitoring and reporting demonstrates that the project is non-compliant (i.e, did not fulfill the requirements of the TDM plan, meet the drive-alone reduction targets, etc.), the City as the enforcing agency may impose penalties including fines.

Assuming a typical reduction in drive-alone trips and mode share (the average between minimum and maximum values), the TDM measures listed above would yield a 22.8 percent reduction in drive-alone trips. This would reduce the home-based VMT per capita from 13.4 to 10.4, which is below the impact threshold of 10.5. With implementation of MM TRN-2.1, the project's VMT would be reduced to a less than significant level. The project, therefore, would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). **(Less than Significant Impact with Mitigation Incorporated)**

Impact TRN-3:	The project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). **(Less than Significant Impact)**

Providing the appropriate sight distance reduces the likelihood of a collision at a driveway and provides drivers with the ability to exit a driveway or locate sufficient gaps in traffic. Sight distance generally should be provided in accordance with Caltrans design standards. The minimum acceptable sight distance is often considered the Caltrans stopping sight distance. Sight distance requirements vary depending on the roadway speeds. The speed limit on East Bayshore is 25 mph, for which Caltrans recommended stopping sight distance is 150 feet. This means that driver must be able to see 150 feet down East Bayshore Road to avoid a collision while exiting the driveway.

The project driveway would be located about 90 feet south of the sharp curve where Whipple Avenue connects to East Bayshore Road. Therefore, eastbound right-turn traffic from Whipple Avenue is expected to travel at lower speeds while making turns. Based on the curb radius, vehicles slow to a maximum of approximately 15 mph when making this turn. The recommended stopping sight distance would be 100 feet for a design speed of 15 mph. There are no landscaping features next to the site driveway that would obstruct the vision of exiting drivers. However, there is a fence along the west side of East Bayshore Road that extends south from the pedestrian crosswalk that limits visibility of vehicles approaching around the curve. Outbound drivers at the project driveway would be able to see vehicles approaching on eastbound Whipple Avenue 150 feet away, which would be more than adequate for the expected vehicle speeds.

Currently, on-street parking is not allowed on East Bayshore Road near the project driveway. Under project conditions, five parallel street parking spaces would be provided to the San Francisco Bay Conservation & Development Commission for public use by Bay Trail visitors south of the project driveway on East Bayshore Road. However, a bulb out would be constructed on East Bayshore Road on both sides of the project driveway that would enable exiting drivers to pull forward after confirming the sidewalk is clear of approaching pedestrians and see past any cars parked near the driveway. There are no roadway curves or tall structures that would obstruct a driver's ability to see 150 feet to the south on East Bayshore Road. Therefore, the sight distance looking south on East Bayshore Road would be adequate. Therefore, the project would not substantially increase hazards. **(Less than Significant Impact)**

Impact TRN-4:	The project would not result in inadequate emergency access. **(Less than Significant Impact)**

The project would be built in conformance with the current building and fire codes and be reviewed by the Fire Department to ensure adequate emergency access, including adequate fire apparatus access to buildings and adequate widths for on-site driveways and parking aisles.

Emergency response vehicles would be able to access the project site from the driveway on East Bayshore Road. The width of the main internal road would be 26 feet wide, which is adequate for emergency vehicle access and circulation. **(Less than Significant Impact)**

3.17.2.2 *Cumulative Impacts*

Impact TRN-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant transportation impact. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

CEQA Guidelines Section 15064.3, Subdivision (b)

Projects requiring a General Plan Amendment are required to evaluate the project effect on VMT under Year 2040 Cumulative Conditions. This scenario reflects buildout of the region's land use and transportation system and provides the long-range view of future travel patterns. The project's effect on VMT under Year 2040 Cumulative Conditions considers the project's influence on the VMT generation of surrounding land uses. The cumulative project effect on VMT was estimated using the City limit boundary and extracting the total link-level VMT for both no project and with project conditions. The cumulative threshold for the project effect on VMT is no change to the City's per capita VMT applying the boundary method. The proposed project would result in a marginal decrease in VMT per service population, and thus the project would not have a significant cumulative impact on VMT. **(Less than Significant Cumulative Impact**

General Plan Transportation Policies

As shown in Table 3.17-1, the project would be consistent with applicable General Plan policies regarding transportation and, therefore, would not have a cumulatively considerable contribution to a significant cumulative conflict with those policies. **(Less than Significant Cumulative Impact)**

Emergency Access and Geometric Design

All cumulative projects (including the project) would comply with current building and fire codes and be reviewed by the Fire Department to ensure adequate emergency access. For these reasons, the cumulative projects would not result in a significant cumulative impact to emergency access. The project would provide adequate sight distance and would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). For these reasons, the cumulative projects would not result in a significant cumulative impact due to transportation hazards. **(Less than Significant Cumulative Impact with Mitigation)**

3.18 TRIBAL CULTURAL RESOURCES

The following discussion is based in part on an NAHC Sacred Lands Search Results. The results and tribal contact information provided by NAHC are administratively confidential documents.

3.18.1 Environmental Setting

3.18.1.1 *Regulatory Framework*

Senate Bill 18

The intent of Senate Bill 18 (SB 18), passed in 2004, 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, as further detailed in AB 52, discussed below.

Assembly Bill 52

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.

3.18.1.2 *Existing Conditions*

No known tribal cultural resources are present on the site, as it was initially undeveloped marsh land prior to placement of fill. On January 24, 2022, a Sacred Lands Search request for the project site was sent to the NAHC. On February 9, 2022, the Sacred Lands Search results were received and showed a positive result for potential sacred lands.[108] The NAHC search area is based on township and range location and encompasses many square miles around the site. Because the specific sacred

[108] Cody Campagne, NAHC. *Sacred Lands Search Result Memo*. February 9, 2022.

lands identified in the search are confidential, it is not known at this time whether the sacred lands are located on or in the vicinity of the site.

No Native American tribes have contacted the City pursuant to AB 52 to be notified about projects within the City for the purposes of requesting consultation.

Pursuant to SB 18, on October 11, 2021 the City of Redwood City sent notification of the subject project to relevant tribes identified by the NAHC. No responses were received.

3.18.2 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:

- 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)?
- 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.

3.18.2.1 *Project Impacts*

Impact TCR-1:	The project would not 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). **(Less than Significant Impact)**

No tribes have requested consultation for projects in the area under AB 52 and there are no known TCRs on-site. Pursuant to SB 18, the City of Redwood City sent notification of the subject project to culturally affiliated tribes identified by the NAHC. No responses were received.

As described previously, a record search of the NAHC Sacred Lands File completed for the site returned a positive result, meaning a tribe has reported the existence of sacred lands within the USGS quadrangle in which the project site is located. Because the specific sacred lands identified in the search are confidential, it is not known at this time whether the sacred lands are located on or in the vicinity of the site. Outreach to the tribes completed pursuant to SB 18 did not result in the identification of sacred lands or tribal cultural resources on or adjacent to the site.
While there is the potential for unknown Native American resources or human remains to be present in the project area, impacts would be less than significant with implementation of the City's General Plan policies related to discovery of archaeological resources or human remains as well as

implementation of conditions of approval for the project (described in detail in *Section 4.5 Cultural Resources*). For these reasons, the project would not cause a substantial adverse change in the significance of a TCR that is listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k). **(Less than Significant Impact)**

Impact TCR-2:	The project would not 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. **(Less than Significant Impact)**

As discussed under Impact TCR-1, there are no known TCRs on-site, and the project includes measures (described in detail in *Section 4.5 Cultural Resources*) to reduce potential impacts to less than significant levels should TCRs be unexpectedly discovered during project construction as well as requiring the presence of a Native American monitor during project construction. For this reason, the project would not cause a substantial adverse change in the significance of a TCR 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. **(Less than Significant Impact)**

3.18.2.2 *Cumulative Impacts*

Impact TCR-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant tribal cultural resources impact. **(Less than Significant Cumulative Impact)**

As discussed under Impact TRC-1 and TRC-2, the project would not impact any known TRCs. For this reason, the project would not contribute to a cumulatively significant TRC impact. **(Less than Significant Cumulative Impact)**

3.19 UTILITIES AND SERVICE SYSTEMS

3.19.1 Environmental Setting

3.19.1.1 *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 adopted its most recent UWMP in 2021.

Assembly Bill 939

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

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 1383

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.

California Green Building Standards Code

CALGreen Section 4.408, Construction Waste Reduction Disposal and Recycling, mandates that, in the absence of a more stringent local ordinance, a minimum of 50 percent of non-hazardous construction and demolition debris must be recycled or salvaged. CALGreen requires that all applicants have a waste management plan for on-site sorting of construction debris. The waste management plan shall do the following:

- Identify the materials to be diverted from disposal by recycling, reused on the project, or salvaged for future use or sale;
- Specify if materials will be sorted on-site or mixed for transportation to a diversion facility;
- Identify the diversion facility where the material collected will be taken;
- Identify construction methods employed to reduce the amount of waste generated; and
- Specify that the amount of materials diverted shall be calculated by weigh or volume, but not by both.

Regional and Local

2018 Bay-Delta Plan Amendment

In December 2018, the State Water Resources Control Board (SWRCB) adopted amendments to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan Amendment) to establish water quality objectives to maintain the health of the Bay-Delta ecosystem. The SWRCB is required by law to regularly review this plan. The adopted Bay-Delta Plan Amendment was developed with the stated goal of increasing salmonid populations in three San Joaquin River tributaries (the Stanislaus, Merced, and Tuolumne Rivers) and the Bay-Delta. The Bay-Delta Plan Amendment requires the release of 40 percent of the "unimpaired flow" on the three tributaries from February through June in every year type, whether wet, normal, dry, or critically dry.

If the Bay-Delta Plan Amendment is implemented, the SFPUC will be able to meet the projected water use demands as presented in the SFPUC's 2020 UWMP in normal years but would experience significant supply shortages in single dry years and multiple dry years. Without the implementation of the Bay-Delta Plan Amendment, the SFPUC would not experience shortages until the fourth and fifth year of a multi-year drought at 2045 levels of projected demand.[109]

The SWRCB has stated that it intends to implement the Bay-Delta Plan Amendment on the Tuolumne River by the year 2022, assuming all required approvals are obtained by that time. However, implementation of the Plan Amendment is uncertain for the following reasons:

1. Since adoption of the Bay-Delta Plan Amendment, over a dozen lawsuits have been filed in both state and federal court, challenging the SWRCB's adoption of the Bay-Delta Plan Amendment, including two legal challenges filed by the federal government, at the request of the U.S. Department of Interior, Bureau of Reclamation in state and federal courts. These cases are in the early stage and there have been no dispositive court rulings to date.

2. The Bay-Delta Plan Amendment is not self-implementing and does not allocate responsibility for meeting its new flow requirements to the SFPUC or any other water rights holders. Rather, the Plan Amendment merely provides a regulatory framework for flow allocation, which must be accomplished by other regulatory and/or adjudicatory proceedings, such as a comprehensive water rights adjudication or, in the case of the Tuolumne River, the 401 certification process in the Federal Energy Regulatory Commission's relicensing proceeding for Don Pedro Dam. It is currently unclear when the license amendment process is expected

[109] 2020 Urban Water Management Plan for the City and County of San Francisco. June 2021.

to be completed. This process and the other regulatory and/or adjudicatory proceedings would likely face legal challenges and have lengthy timelines, and quite possibly could result in a different assignment of flow responsibility (and therefore a different water supply impact on the SFPUC).

3. In recognition of the obstacles to implementation of the Bay-Delta Plan Amendment, SWRCB Resolution No. 2018-0059 adopting the Bay-Delta Plan Amendment directed staff to help complete a "Delta watershed-wide agreement, including potential flow measures for the Tuolumne River" by March 1, 2019, and to incorporate such agreements as an "alternative" for a future amendment to the Bay-Delta Plan to be presented to the SWRCB "as early as possible after December 1, 2019." In accordance with the SWRCB's instruction, on March 1, 2019, SFPUC, in partnership with other key stakeholders, submitted a proposed project description for the Tuolumne River that could be the basis for a voluntary substitute agreement with the SWRCB ("March 1st Proposed Voluntary Agreement"). On March 26, 2019, the San Francisco Public Utilities Commission adopted Resolution No. 19-0057 to support SFPUC's participation in the Voluntary Agreement negotiation process. To date, those negotiations are ongoing under the California Natural Resources Agency and the leadership of the Newsom administration.

Therefore, the City's 2020 Urban Water Management Plan determined that implementation of the Bay-Delta Plan Amendment is uncertain. However, since the adoption of the City's 2020 Urban Water Management Plan, the State Water Board has proceeded forward with planning for implementation of the Bay-Delta Plan Amendment. During an information item at a regularly scheduled State Water Board meeting on December 7th through December 8th, 2021, the State Water Board informed the public about past and upcoming actions related to the process to update and implement the Bay-Delta Plan.[110] The Executive Director is anticipated to consider approval of the Compliance Methods Report for the Bay-Delta Plan Amendment in the Summer of 2022.[111]

The City expects the available supplies to be sufficient to meet projected demands in normal conditions; however, significant shortfalls are projected in dry year conditions, which, if realized, would require the City to enact its Water Shortage Contingency Plan.[112]

Redwood City Urban Water Management Plan

The City's most current UWMP is the 2020 Urban Water Management Plan. The purpose of the UWMP is to facilitate local and regional water planning activities and support the City's long-term water resource planning goals. The population projections outlined in the 2010 General Plan match the growth assumptions contained in the UWMP.

[110] State Water Resources Control Board. San Francisco Bay/Sacramento – San Joaquin Delta Estuary (Bay Delta) Watershed Efforts. Accessed April 1, 2022. https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/

[111] State Water Resources Control Board. Upcoming Actions to Update and Implement the Bay-Delta Plan Informational Item. Staff Presentation. December 2021. https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/docs/20211207-slides-for-12-08-bay-delta-plan-inform-item_accessible.pdf

[112] Redwood City. 2020 Urban Water Management Plan for City of Redwood City. May 2021.

The City's total annual water demand in 2020 was 10,708 acre-feet, including both potable and recycled water. The water demand is projected to be 11,263 acre-feet in 2045, per the UWMP.

The City has actively reviewed alternate water sources and methods to reduce its water demand and reliance on the Regional Water System. The City does not include local groundwater as a source of supply in its 2020 UWMP; locally groundwater is not used as a source of municipal potable water supply due to water quality, quantity, reliability, and long-term production capacity concerns. Beyond groundwater, the City has incorporated extensive, active water conservation and recycling programs. The active measures include incentives and rebates for low-flow toilets and water efficient faucets, washing machines, shower heads, and irrigation methods. The recycling program includes a water treatment facility and series of distribution pipelines.

Regional Water Quality Control Board Requirements

RWQCB includes regulatory requirements that each wastewater collection system agency shall, at a minimum, develop goals for the Sewer System Management Plan to provide adequate capacity to convey peak flows. Other RWQCB regulatory requirements include the General Waste Discharge Requirements, which regulates the discharge from wastewater treatment plants.

2019 Five-Year Countywide Integrated Waste Management Plan Review Report

Public Resources Code Sections 41770 and 41822, and Title 24, California Code of Regulations Section 18788 require that each countywide or regional agency integrated waste management plan, and the elements thereof, be reviewed, revised if necessary, and submitted to CalRecycle every five years. The San Mateo County's most recent five year Countywide Integrated Waste Management Plan (CIWMP) was completed in 2019. The purposes of the CIWMP is, in part, to determine if the county has adequate landfill disposal capacity.

Redwood City Construction & Demolition Debris Program

The City requires 100 percent of demolition inert solids (asphalt, brick, concrete, dirt, rock, sand, soil, and stone) be diverted from the landfill and a minimum of 65 percent of all other construction and demolition debris from new construction, roofing, and alternations/additions be diverted from the landfill.

Redwood City General Plan

The General Plan includes policies for the purpose of avoiding or mitigating impacts from planned development in the City. The policies below are specific to utilities and service systems and are applicable to the proposed project.

Policy	Description
The Built Environment	
BE-40.2	Maintain the city's water system to ensure adequate fire flow.

Policy	Description
BE-41.3	Minimize groundwater infiltration and inflow to the wastewater collection system to maintain sufficient peak wet weather capacity and continue to explore other possible options to reduce peak wet weather flow.
BE-44.2	Continue to require the placement of utilities underground with new development.
BE-45.1	Meet or exceed State mandates regarding the diversion of waste from landfills.

3.19.1.2 *Existing Conditions*

Water Supply and System

The City's water service area covers approximately 14 square miles and serves the City of Redwood City and portions of the sphere of influence including Emerald Lake Hills and a portion of North Fair Oaks, and Canada College. The Redwood City water system receives potable water from the Hetch Hetchy regional water system operated by the San Francisco Public Utilities Commission. Water supply from the San Francisco Public Utilities Commission is currently operating without implementation of the Bay-Delta Plan Amendment. Whether and when the Bay-Delta Plan Amendment will be implemented, and how those amendments, if implemented, will affect the SFPUC's, and thereby Redwood City's, water supply is currently uncertain and possibly speculative.

The City owns and operates the recycled water system. Silicon Valley Clean Water (SVCW, formerly known as South Bayside System Authority or SBSA, which is a is a joint-powers authority that the City is a party to) and Redwood City entered into agreements for the production and distribution of recycled water. The project site is located within the recycled water service area.[113] The nearest recycled water pipeline is a 24-inch main along East Bayshore Road.

The project site is served by an eight-inch water line in East Bayshore Road. The eight-inch pipe is connected to the City's new water main, a 24-inch pipe that crosses U.S. Route 101 parallel to the existing water main. The site's current water demand is approximately 6,533,968.75 gallons per year.[114]

Sanitary Sewer System/Wastewater Treatment

The Redwood City Public Works Services Department operates and maintains the sanitary sewer system. The City has agreements with San Mateo County sewer districts in adjacent unincorporated areas to collect and convey wastewater for treatment. These districts include the Emerald Lake Heights, Fair Oaks, Kensington Square, Oak Knoll, and Edgewood Sewer Districts. The wastewater contributions of these districts are considered part of the City's total inflows to the SVCW wastewater treatment plant. The SVCW wastewater treatment plant permitted operating capacity is 29 million gallons per day (mgd) of average dry weather flow (ADWF) and 71 mgd of peak wet weather flow (PWWF). The City has an ADWF capacity allocation of approximately 13.8 mgd at the

[113] Redwood City. *Recycled Water Service Area Map*. Map. June 13, 2016.
[114] This calculation is based off of CalEEMod's Appendix D Default Data Tables, dated May 2021. The existing indoor water use was calculated using the default water use rate for general light industry of 231,250 gallons per year per 1,000 square feet. The buildings combined square footage of 28,255 square feet was used for the calculations. The calculation was as follows: 28.255 x 231,250 = 6,533,968.75 gallons per year.

wastewater treatment plant.[115] The City currently generates approximately nine mgd of ADWF. In the past, the City has experienced PWWF capacity issues due to rain and groundwater infiltration into the collection system, however, the sewer system downstream of the project site has adequate capacity for the PWWF.[116]

The project site is served by an eight-inch sanitary sewer main in East Bayshore Road. The existing 8-inch main gravity flows east and crosses the US 101 via a 15-inch sewer line ultimately collecting at the Redwood City Pump station located on Maple Street. The site currently produces approximately 6,207,270 gallons of sewage wastewater per year, or an average of 17,006.2 gallons of sewage per day.[117]

Storm Drainage System

The Redwood City Public Works Services Department operates and maintains the City's storm drainage system. Stormwater in Redwood City is conveyed into creeks, lined channels, storm drainage pipes and retention basins, all of which drain directly into San Francisco Bay.

Currently, approximately 33,201 square feet (or 30 percent) of the project site is pervious and the remaining 77,441 square feet (or 70 percent) is impervious. The project site currently contains existing storm drain infrastructure which captures the runoff from the existing site and the street runoff from East Bayshore Road off-site.

Electricity, Natural Gas, and Telecommunication Services

Peninsula Clean Energy (PCE) is the default electricity provider in the City and PG&E provides natural gas service to the City. There are overhead electricity lines on East Bayshore Road and along the Bay Trail.

Solid Waste

Recology San Mateo provides solid waste collection, recycling, transportation, and disposal services to Redwood City. Residential and commercial solid waste from Redwood City is taken to the Shoreway Environmental Center, a recycling and transfer station located on Shoreway Road in San Carlos. Once sorted, solid waste is hauled to Ox Mountain Sanitary Landfill for disposal. Ox Mountain Sanitary Landfill has approximately 22 million cubic yards of disposal capacity remaining and has an estimated closure date of 2034.[118] In 2020, the City disposed of approximately 81,346 tons.[119] The site currently generates approximately 35.04 tons of solid waste per year.[120]

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[115] City of Redwood City. *Draft Environmental Impact Report for the Redwood City Downtown Precise Plan*. August 2010. Certified January 2011.
[116] West Yost Associates. *Technical memorandum, City of Redwood City Sewer Master Plan Update.* January 28, 2013.
[117] Redwood City's Attachment L Sewage Generation Projection Worksheet assumes that a site's sewage generation is 95% of the site's indoor water demand. For the purpose of this analysis, 95 percent of the site's domestic water use of 6,533,968.75 gallons per year was assumed.
[118] CalRecycle. *Solid Waste Facility Permit 41-AA-0002.* June 5, 2017.
[119] CalRecycle. *Jurisdiction Disposal Tonnage Trend.* https://www2.calrecycle.ca.gov/LGCentral/AnnualReporting/ReviewReports. Accessed: February 7, 2022.
[120] CalEEMod Appendix D: Default Data Tables. Table 10.1: Solid Waste Disposal Rates. September 2016.

3.19.2 Impact Discussion

For the purpose of determining the significance of the project's impact on utilities and service systems, 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?
- Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?
- 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?
- 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?
- Be noncompliant with federal, state, or local management and reduction statutes and regulations related to solid waste?

3.19.2.1 *Project Impacts*

Impact UTL-1:	The project would not 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. **(Less than Significant Impact)**

Water System

The project would improve the potable water main in E. Bayshore Road by replacing the existing eight-inch pipe with a new pipe. The project will be responsible for approximately 820 linear feet of 16" pipe and 925 linear feet of 12 inch pipe if it is the only development in the area. New connections would be provided for domestic water service, building fire sprinkler service, and site fire hydrant services. The design criteria used for the development of the project's potable water system would be based on established industry operation standards and the City Design Criteria.

The site's current water demand is approximately 6,533,968.75 gallons per year.[121] It is estimated the project would use approximately 3,648,624 gallons of water per year for indoor purposes and 2,300,200 gallons of water per year for outdoor purposes, for a total of 5,948,824 gallons of water

General Light Industry: 1.24 tons per 1,000 sq ft. The buildings combined square footage of 28,255 square feet was used for the calculations. The calculation was as follows: 28.255 x 1.24 = 35.04 tons per year.

[121] This calculation is based off of CalEEMod's Appendix D Default Data Tables, dated May 2021. The existing indoor water use was calculated using the default water use rate for general light industry of 231,250 gallons per year per 1,000 square feet. The buildings combined square footage of 28,255 square feet was used for the calculations. The calculation was as follows: 28.255 x 231,250 = 6,533,968.75 gallons per year.

per year.[122] The project, therefore, would result in a net decrease in water demand of 585,144.75 gallons per year compared to existing conditions. The project would utilize recycled water for landscaping and dual plumbing. The project would connect to the recycled water pipeline along East Bayshore Road. The use of recycled water would reduce the project's demand for potable water.

New regional water storage improvements are expected to provide a sufficient water storage/supply for the City. These improvements include two new water storage tanks: one with 3.3 MG capacity and one with 3.0 MG capacity within the East 101 Fair Share Infrastructure Area. Additional regional water transmission improvements within the East 101 Fair Share Infrastructure Area are expected to provide additional transmission capacity by upsizing the potable water main in Blomquist Street to a 24-inch high-density polyethylene (HDPE) pipe, from Bair Island Road to Seaport Boulevard. The applicant would be required to contribute its fair share to these improvements.

Sanitary Sewer System/Wastewater Treatment Facilities

It is estimated that the project would generate approximately 3,466,193 gallons of sewage per year (0.0095 mgd),[123] which is a decrease of 2,741,077 gallons per year compared to the existing sites generation of approximately 6,207,270 gallons per year. The project would connect to the existing eight-inch sanitary sewer main in E. Bayshore Road via a new six-inch lateral from the site. Given the SVCW wastewater treatment plant capacity (29 mgd ADWF), the City's allocated capacity at the treatment plant (13.8 mgd), the City's current generation (nine mgd), and the project's estimated net sewage generation (0.0095 mgd), there is sufficient capacity at the treatment plant to accept project flows.

Storm Drainage System

With the implementation of the project, impervious surfaces would increase from 77,441 square feet (or 70 percent) to 78,786 (or 71 percent). An increase of one percent is miniscule, but would result in a corresponding net increase in runoff. Per City standards for stormwater control, the project shall detain any net increase in runoff produced from the increase in impervious surfaces and match the pre-project flows. The project, therefore, would not result in a net increase in runoff from the site and the existing storm drainage system would be adequate to serve the project.

Stormwater on the site would be treated through a combination of vegetated bioretention areas, permeable paving, and flow-through treatment planters. The treatment areas would be located primarily around the site's perimeter and adjacent to the proposed buildings. In total, the project proposes approximately 25,960 square feet of treatment areas. Stormwater would be conveyed through storm drainage pipes ranging from eight-inches to 12-inches in diameter, ultimately discharging to a new proposed 12 inch storm drain outfall at the northwestern boundary of the project site. The stormwater plan for the proposed project is shown on Figure 2.0-7.

[122] This calculation is based off of CalEEMod's Appendix D Default Data Tables, dated May 2021. The project's indoor water use was calculated using the default water use rate for condo/townhouse of 65,154 gallons per year per dwelling unit. The project's outdoor water use was calculated using the default water use rate for condo/townhouse of 41,075 gallons per year per dwelling unit. The project would include 56 dwelling units. The calculation was as follows: (56 x 65,154) + (56 x 41,075) = 3,648,624 gallons per year.

[123] Redwood City's Attachment L Sewage Generation Projection Worksheet assumes that a site's sewage generation is 95% of the site's indoor water demand. For the purpose of this analysis, 95 percent of the site's proposed domestic indoor water use of 3,648,624 gallons per year was assumed.

Electric Power, Natural Gas, and Telecommunications

The project site is already served by existing electricity, natural gas, and telecommunications infrastructure. The project would underground the overhead electricity lines on East Bayshore Road along the project frontage and connect the new underground services to existing infrastructure. No new or expanded infrastructure (e.g., transmission lines or natural gas pipelines) is required. **(Less than Significant Impact)**

Impact UTL-2:	The project would not have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years. **(Less than Significant Impact)**

As discussed under Impact UTL-1, the site's current water demand is approximately 6,533,968.75 gallons per year.[124] It is estimated the project would use approximately 3,648,624 gallons of water per year for indoor purposes and 2,300,200 gallons of water per year for outdoor purposes, for a total of 5,948,824 gallons of water per year.[125] The project, therefore, would result in a net decrease in water demand of 585,144.75 gallons per year compared to existing conditions.

The total potable projected water demand in the City in the UWMP is based on the population and employment projections assumed in the City's General Plan and planned projects.[126] While the project proposes a General Plan Amendment, the project's water use would be less than the existing use on-site, which was accounted for within the General Plan. For this reason, the project's water demand is accounted for in the City's UWMP.

The UWMP concluded that the City has sufficient water supply to meet its planned water demands during normal years through 2040.[127] During dry years, the City expects to experience some supply shortfalls. The City will meet water supply shortfalls through implementation of its Water Shortage Continency Plan, which the City had successfully implemented in the past.[128] For these reasons, the project would have sufficient water supplies available to serve the project and reasonably foreseeable future development. **(Less than Significant Impact)**

[124] This calculation is based off of CalEEMod's Appendix D Default Data Tables, dated May 2021. The existing indoor water use was calculated using the default water use rate for general light industry of 231,250 gallons per year per 1,000 square feet. The buildings combined square footage of 28,255 square feet was used for the calculations. The calculation was as follows: 28.255 x 231,250 = 6,533,968.75 gallons per year.
[125] This calculation is based off of CalEEMod's Appendix D Default Data Tables, dated May 2021. The project's indoor water use was calculated using the default water use rate for condo/townhouse of 65,154 gallons per year per dwelling unit. The project's outdoor water use was calculated using the default water use rate for condo/townhouse of 41,075 gallons per year per dwelling unit. The project would include 56 dwelling units. The calculation was as follows: (56 x 65,154) + (56 x 41,075) = 3,648,624 gallons per year.
[126] Erler & Kalinowski, Inc. *2015 Urban Water Management Plan for the City of Redwood City.* June 2016. Page 30.
[127] Erler & Kalinowski, Inc. *2015 Urban Water Management Plan for the City of Redwood City.* June 2016. Page 88.
[128] Ibid.

Impact UTL-3:	The project would not 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. **(Less than Significant Impact)**

As discussed under Impact UTL-1, the SVCW wastewater treatment plant has sufficient capacity to serve the proposed project. The project would result in a decrease of 2,741,077 gallons per year compared to existing wastewater generation on-site. **(Less than Significant Impact)**

Impact UTL-4:	The project would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. **(Less than Significant Impact)**

The site would generate 25.76 tons of solid waste per year that would be hauled to Ox Mountain Sanitary Landfill for disposal, which is a decrease of 9.28 tons per year compared to the site's existing generation of 35.04 tons per year.[129] Ox Mountain Sanitary Landfill has 22 million cubic yards of disposal capacity remaining.[130] There is, therefore, sufficient capacity at Ox Mountain Sanitary Landfill to serve the project.

The project would be required to comply with the state and local regulations described in Section 3.19.1.1 regarding construction and demolition recycling and on-site recycling collection to assist the attainment of solid waste reduction goals. **(Less than Significant Impact)**

Impact UTL-5:	The project would not be noncompliant with federal, state, or local management and reduction statutes and regulations related to solid waste. **(Less than Significant Impact)**

The construction and operation of the project would comply with federal, state, and local regulations related to diversion of materials from disposal and appropriate disposal of solid waste. **(Less than Significant Impact)**

[129] CalEEMod Appendix D: Default Data Tables. Table 10.1: Solid Waste Disposal Rates. September 2016. Condo/townhouse: 0.46 tons per dwelling unit. The project proposes 56 dwelling units. The calculation was as follows: 56 x 0.46 = 25.76 tons per year.
[130] One cubic yard is equivalent to 1.5 tons.

3.19.2.2 *Cumulative Impacts*

Impact UTL-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant utilities and service systems impact. **(Less than Significant Cumulative Impact)**

Water Supply and System

The geographic area for cumulative water supply and system impacts is the service area of the Redwood City water system. The cumulative projects not requiring a General Plan Amendment are accounted for in population and employment assumptions of the UWMP, which evaluates growth in water demand based on planned growth through the year 2040. For this reason, there is adequate water supply (with the implementation of the City's Water Shortage Contingency Plan if needed) for the cumulative projects. While the project requires a General Plan Amendment and therefore is not accounted for in the population growth resulting from the current General Plan, as discussed above, the project has a net negative water demand after accounting for baseline site water demand. The project, therefore, would not result in a considerable contribution to a significant cumulative water supply impact. **(Less than Significant Cumulative Impact)**

Sanitary Sewer System/Wastewater Treatment

The geographic area for cumulative sanitary sewer system and wastewater treatment is the service area of the sanitary sewer system serving the City. Based on review of the existing sanitary sewer system infrastructure and cumulative projects, the ADWF from the project and other cumulative projects would not require new or expanded sanitary sewer system infrastructure. To reduce PWWF, cumulative projects (including the project) will be required to replace older sewer lines to reduce rainfall infiltration.[131]

The General Plan EIR concluded there was sufficient wastewater treatment capacity to serve full build out of the General Plan.[132] Although the project would amend the General Plan to allow additional residential development in the City, an increase of 56 dwelling units is not substantial in relation to the overall planned growth in the City. Additionally, the project would actually result in a decrease of 2,741,077 gallons of wastewater generation per year compared to the site's existing wastewater generation. The project's incremental increase in residential density would not result in a substantial increase in the City's current or projected wastewater treatment demand and the increase in residences from the project would not be substantial in comparison to the scenario evaluated in the City's General Plan EIR. In addition, individual projects would replace older sewer lines as needed to reduce rainfall infiltration and inflow. For these reasons, the cumulative projects would not have a

[131] Redwood City has a CIP developed for the wastewater system. Every year, the wastewater projects are reviewed, prioritized, and implemented to provide a safe and reliable system. Improvement projects ranging from rehabilitation of existing pump stations and replacement of aging sewer infrastructure are conducted yearly. In August 2008, Redwood City completed an evaluation of the sewer capacity analysis that provided a list of improvements that are required to sustain the growth to year 2030. Source: Redwood City General Plan. The Built Environment. October 2010.

[132] Redwood City. *A New General Plan for Redwood City Draft Environmental Impact Report.* May 2010. Certified in October 2010. Pages 4.15-26 and 4.15-27.

significant cumulative impact on wastewater treatment capacity. **(Less than Significant Cumulative Impact)**

Storm Drainage System

The geographic area for cumulative storm drain impacts includes the project site and surrounding area, specifically areas upstream and downstream of the project site located within the same storm drain catchment area. Build out of the cumulative projects (see Table 3.0-1 Cumulative Projects) would involve redevelopment of existing developed sites that contain impervious surfaces, and these projects would be required to comply with applicable regulations regarding stormwater runoff and infrastructure to ensure the sites do not result in additional storm runoff during design storm events. For these reasons, the cumulative projects would not result in a significant cumulative impact to the storm drain system. The project, therefore, would not result in a considerable contribution to a significant cumulative storm drain system impact. **(Less than Significant Cumulative Impact)**

Electricity, Natural Gas, and Telecommunication Services

Energy is a cumulative resource. The geographic area for cumulative electricity, natural gas, and telecommunication services is the State of California. If a project is determined to have a significant energy impact, it is concluded that the project impact is contributing in a cumulatively considerable manner to a cumulative impact. As discussed under Impact EN-3, the project would not result in a significant energy impact. In addition, the cumulative projects are within urban areas already served by existing electricity, natural gas, and telecommunication infrastructure. Redevelopment of the cumulative project sites (including the project site) would not require new or expanded electricity, natural gas, and telecommunication infrastructure. The project, therefore, would not result in a considerable contribution to a significant cumulative impact to electricity, natural gas, and telecommunication infrastructure. **(Less than Significant Cumulative Impact)**

Solid Waste

The geographic area for cumulative landfill impacts is the County because the CIWMP evaluates countywide landfill capacity. San Mateo County has one operating landfill, which is used by most county jurisdictions for municipal disposal, Ox Mountain Sanitary Landfill. According to the 2019 Five-Year CIWMP, the County has adequate disposal capacity.[133] As discussed in Section 3.19.1.2, Ox Mountain Sanitary Landfill has an estimated closure date of 2034. The General Plan EIR concluded that the build out of the City would not result in a significant landfill impact.[134] The project would generate less solid waste than the existing uses on the site. For these reasons, the cumulative projects in the City (including the proposed project) would not result in significant cumulative landfill impacts. The project, therefore, would not result in a considerable contribution to a significant cumulative landfill impact. **(Less than Significant Cumulative Impact)**

[133] County of San Mateo. *2019 Five-Year Countywide Integrated Waste Management Plan Review Report.* November 2019. Page 7.
[134] Redwood City. *A New General Plan for Redwood City Draft Environmental Impact Report.* May 2010. Certified in October 2010. Pages 4.15-28.

3.20 WILDFIRE

3.20.1 Environmental Setting

3.20.1.1 *Regulatory Framework*

State

Fire Hazard Severity Zones

CAL FIRE is required by law to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. Referred to as Fire Hazard Severity Zones (FHSZs), these maps influence how people construct buildings and protect property to reduce risk associated with wildland fires. FHSZs are divided into areas where the state has financial responsibility for wildland fire protection, known as state responsibility areas (SRAs), and areas where local governments have financial responsibility for wildland fire protection, known as local responsibility areas (LRAs). Homeowners living in an SRA are responsible for ensuring that their property is in compliance with California's building and fire codes. Only lands zoned for very high fire hazard are identified within LRAs.

California Fire Code Chapter 47

Chapter 47 of the California Fire Code sets requirements for wildland-urban interface fire areas that increase the ability of buildings to resist the intrusion of flame or burning embers being projected by a vegetation fire, in addition to systematically reducing conflagration losses through the use of performance and prescriptive requirements.

California Public Resources Code Section 4442 through 4431

The California Public Resources Code includes fire safety regulations that restrict the use of equipment that may produce a spark, flame, or fire; require the use of spark arrestors on construction equipment that uses an internal combustion engine; specify requirements for the safe use of gasoline-powered tools on forest-covered land, brush-covered land, or grass-covered land; and specify fire suppression equipment that must be provided on-site for various types of work in fire-prone areas. These regulations include the following:

- Earthmoving and portable equipment with internal combustion engines would be equipped with a spark arrestor to reduce the potential for igniting a wildland fire (Public Resources Code Section 4442);
- Appropriate fire suppression equipment would be maintained during the highest fire danger period, from April 1 to December 1 (Public Resources Code Section4428);
- On days when a burning permit is required, flammable materials would be removed to a distance of 10 feet from any equipment that could produce a spark, fire, or flame, and the construction contractor would maintain appropriate fire suppression equipment (Public Resources Code Section 4427); and
- On days when a burning permit is required, portable tools powered by gasoline-fueled internal combustion engines would not be used within 25 feet of any flammable materials (Public Resources Code Section 4431).

California Code of Regulations Title 14

The California Board of Forestry and Fire Protection has adopted regulations, known as SRA Fire Safe Regulations, which apply basic wildland fire protection standards for building, construction, and development occurring in a SRA. The future design and construction of structures, subdivisions and developments in SRAs are required to provide for the basic emergency access and perimeter wildfire protection measures discussed in Title 14.

Fire Management Plans

CAL FIRE has developed an individual Unit Fire Management Plan for each of its 21 units and six contract counties. CAL FIRE has developed a strategic fire management plan for the San Mateo Santa Cruz Unit, which covers the project area and addresses citizen and firefighter safety, watersheds and water, timber, wildlife and habitat (including rare and endangered species), unique areas (scenic, cultural, and historic), recreation, range, structures, and air quality. The plan includes stakeholder contributions and priorities and identifies strategic areas for pre-fire planning and fuel treatment as defined by the people who live and work with the local fire issues.[135]

3.20.1.2 *Existing Conditions*

The project site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones.[136]

3.20.2 Impact Discussion

For the purpose of determining the significance of the project's impact on wildfire, if located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

- Substantially impair an adopted emergency response plan or emergency evacuation plan?
- Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?
- Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?
- Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

[135] CAL FIRE. San Mateo – Santa Cruz Unit 2021 Strategic Fire Plan. May 5, 2021. https://osfm.fire.ca.gov/media/ye0hefak/2021_czu_fireplan.pdf

[136] Sources: 1) State of California Department of Forestry and Fire Protection. *San Mateo County Fire Hazard Severity Zones in SRA*. Adopted November 7, 2007. and 2) State of California Department of Forestry and Fire Protection. *Redwood City Very High Fire Hazard Severity Zones in LRA As Recommended by CAL FIRE.* Adopted November 24, 2008.

3.20.2.1 *Project Impacts*

The project site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones; therefore, the project would not result in wildfire impacts. **(No Impact)**

3.20.2.2 *Cumulative Impacts*

The project site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones; therefore, the project would not result in cumulative wildfire impacts. **(No Cumulative Impact)**

SECTION 4.0 GROWTH-INDUCING IMPACTS

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 EIR is intended to evaluate the impacts of such growth in the surrounding environment. Examples of projects likely to have significant growth-inducing impacts include removing obstacle to population growth, for example by extending or expanding infrastructure beyond what is needed to serve the project. Other examples of growth inducement include increases in population that may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects.

For the purposes of this project, a growth inducing impact is considered significant if the project would:

- Cumulatively exceed official regional or local population projections;
- Directly induce substantial growth or concentration of population. The determination of significance shall consider the following factors: the degree to which the project would cause growth (i.e., new housing or employment generators) or accelerate development in an undeveloped area that exceeds planned levels in local land use plans; or
- Indirectly induce substantial growth or concentration of population (i.e., introduction of an unplanned infrastructure project or expansion of a critical public facility [road or sewer line] necessitated by new development, either of which could result in the potential for new development not accounted for in local general plans).

Impact GRO-1:	The project would not foster or stimulate significant economic or population growth in the surrounding environment. **(Less than Significant Impact)**

The project proposes development on a parcel considered an infill site in the City of Redwood City. The site is surrounded by existing infrastructure and both existing and planned development. Development of the proposed project would contribute to the East 101 Fair Share Infrastructure Plan and improve the existing potable water main in E. Bayshore Road as well as underground electricity lines that directly serve the project site. This would directly serve the project site and would not facilitate growth in the project area or other areas of the City.

As discussed in Section 3.14 Population and Housing, the residential population growth from the project would not constitute substantial population growth in the area because it would occur on an urbanized infill site currently served by existing roads, transit, utilities, and public services, and is consistent with General Plan goals for focused and sustainable growth. The project proposes a General Plan Amendment from *RC – Commercial Regional* to *Mixed Use – Waterfront Neighborhood* and a rezoning to *MUWF – Mixed Use Waterfront*. Although the project would amend the General Plan to allow additional residential development in the City, an increase of 56 dwelling units is not substantial in relation to the overall planned growth in the City. The project's incremental increase in residential density would not result in a substantial increase in the City's current or projected population. Additionally, as discussed previously, the jobs/employed residents' ratio for Redwood City in 2010 was 1.65, which means that there were 1.65 jobs for every employed resident

in the City[137]. Since that time, the jobs/housing imbalance has grown further. The jobs to housing growth ratio in Redwood City between 2010 and 2015 was 7.1:1. By 2018, the jobs to housing growth ratio increased to 8.2:1.[138] The project would place housing in an area where there are currently more jobs than employed residents and, therefore, would provide residences for existing employees who currently work in the area but may need top reside elsewhere due to a lack of available housing.

In addition, the project would pay all applicable impact fees and taxes, which would offset fiscal and service impacts to public facilities and services, including police and fire, schools, and parks. As a result, growth associated with the implementation of the project would not have a significant impact on community service facilities, nor would it make a cumulatively considerable contribution to such impacts, requiring construction of new facilities that could cause significant environmental effects.

For the reasons discussed above, the project would not result in significant indirect growth-including impacts. **(Less than Significant Impact)**

[137] Association of Bay Area Governments. Projections 2013.
[138] City of Redwood City. Redwood City Live/Work Policy Analysis. July 2021.

SECTION 5.0 SIGNIFICANT AND IRREVERSIBLE ENVIRONMENTAL CHANGES

This section was prepared pursuant to CEQA Guidelines Section 15126.2(c), which requires a discussion of the significant irreversible changes that would result from the implementation of a proposed project. Significant irreversible changes include the use of nonrenewable resources, the commitment of future generations to similar use, irreversible damage resulting from environmental accidents associated with the project, and irretrievable commitments of resources. Applicable environmental changes are described in more detail below.

5.1 USE OF NONRENEWABLE RESOURCES

During construction and operation, the project would require the use and consumption of nonrenewable resources. Unlike renewable resources, nonrenewable resources cannot be regenerated over time. Nonrenewable resources include fossil fuels and metals. Renewable resources, such as lumber and other wood byproducts, could also be used.

Energy, as discussed in more detail in Section 3.6 Energy, would be consumed during both the construction and operational phases of the project. The construction phase would require the use of nonrenewable construction material, such as concrete, metals, and plastics, and glass. Nonrenewable resources and energy would also be consumed during the manufacturing and transportation of building materials, preparation of the site, and construction of the buildings. The operational phase 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 project site.

The project would result in an increase in demand for nonrenewable resources. The project, however, is subject to the standard California Code of Regulations Title 24 Part 6 and CALGreen energy efficiency requirements. For these reasons, the project would minimize the use of nonrenewable energy resources.

5.2 COMMITMENT OF FUTURE GENERATIONS TO SIMILAR USE

The project would be developed on a site that was already fully developed for urban uses. Development of the project would commit resources to prepare the site, construct the buildings, and operate them, but it would not result in development of a previously undeveloped area.

5.3 IRREVERSIBLE DAMAGE RESULTING FROM ENVIRONMENTAL ACCIDENTS ASSOCIATED WITH THE PROJECT

The project does not propose any new or uniquely hazardous uses and its operation would not cause environmental accidents that would impact other areas. As discussed in Section 3.9 Hazards and Hazardous Materials, there would be no significant hazards and hazardous materials conditions on-site or off-site that would substantially affect the public and surrounding environment. As discussed in Section 3.7 Geology and Soils, there would be no significant geology and soils impacts from implementation of the project. For these reasons, the project would not result in irreversible damage that may result from environmental accidents.

SECTION 6.0 SIGNIFICANT AND UNAVOIDABLE IMPACTS

The project, with implementation of identified mitigation measures and standard conditions of approval, would not result in any significant and unavoidable impacts.

SECTION 7.0 ALTERNATIVES

7.1 OVERVIEW

The California Environmental Quality Act (CEQA) requires that an EIR identify and evaluate alternatives to a project as it is proposed. Two key provisions from the CEQA Guidelines pertaining to the discussion of alternatives are included below:

> **Section 15126.6(a). Consideration and Discussion of Alternatives to the Proposed Project.** An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, 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, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.
>
> **Section 15126.6(b). Purpose.** Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or be more costly.

Other elements of the Guidelines discuss that alternatives should include enough information to allow a meaningful evaluation and comparison with the proposed project. The CEQA Guidelines state that if an alternative would cause one or more additional impacts, compared to the proposed project, the discussion should identify the additional impact, but in less detail than the significant effects of the proposed project.

The three critical factors to consider in selecting and evaluating alternatives are: (1) the significant impacts from the proposed project that could be reduced or avoided by an alternative, (2) consistency with the project's objectives, and (3) the feasibility of the alternatives available. Each of these factors is discussed below.

7.2 SIGNIFICANT IMPACTS FROM THE PROJECT

The significant impacts identified in this EIR resulting from the proposed project include:

- **Impact AIR-1**: Construction activities associated with the proposed project would expose sensitive receptors near the project site to Toxic Air Contaminant emissions in excess of the BAAQMD cancer risk threshold of >10 cases per million and annual PM2.5 concentration threshold of 0.3 µg/m3. (Less than Significant Impact with Mitigation Measures MM AIR-1.1)

- **Impact BIO-1**: Construction activities could impact common native nesting birds and special-status birds such as Alameda Song Sparrow and White-Tailed Kite. (Less than Significant Impact with Mitigation Measure MM BIO-1.1)

- **Impact BIO-2**: Artificial lighting could have a potentially significant impact on local wildlife populations due to the high ecological value of these adjacent habitat areas and the rarity of some of the species inhabiting these areas. (Less than Significant Impact with Mitigation Measures MM BIO-2.1 to MM BIO-2.3)

- **Impact BIO-3**: Project activities may result in the injury or mortality of salt marsh harvest mice and salt marsh wandering shrews. (Less than Significant Impact with Mitigation Measures MM BIO-3.1 to MM BIO-3.4)

- **Impact BIO-4**: Project activities may result in the introduction of invasive weeds during and following project construction which could lead to degradation of muted tidal marsh habitat. (Less than Significant Impact with Mitigation Measure MM BIO-4.1)

- **Impact BIO-5**: The project would result in the permanent loss of muted tidal marsh habitat, which is potential habitat for salt marsh harvest mice and salt marsh wandering shrews. (Less than Significant Impact with Mitigation Measure MM BIO-5.1)

- **Impact BIO-6**: The project could result in an impact to salt marsh harvest mice and salt marsh wandering shrews from an increase in predation due to increased available food waste, an increase in outdoor pets, and/or the presence of one or more feral cat feeding station(s). (Less than Significant Impact with Mitigation Measures MM BIO-6.1 to MM BIO-6.2)

- **Impact HAZ-1**: The project could expose construction workers to hazardous materials associated with contaminated fill on the site. (Less than Significant Impact with Mitigation Measure MM HAZ-1.1)

- **Impact HAZ-2**: The project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. (Less than Significant Impact with Mitigation Measure MM HAZ-1.1)

- **Impact TRN-1**: The project would conflict with adopted plans for bicycle lanes on E. Bayshore Road. (Less than Significant Impact with Mitigation Measure MM TRN-1.1)

- **Impact TRN-2**: The project generated home-based VMT per capita is 13.4, which is greater than the threshold of 10.5 for residential uses. Without measures to reduce VMT, the project would have a significant impact based on the project generated VMT. (Less than Significant Impact with Mitigation Measure MM TRN-2.1)

It should be noted that each impact is capable of being mitigated to less than significant levels, and so the alternatives presented below are available for consideration by the decision-makers, but in making the findings required under CEQA Guidelines 15091(a), the decision-makers can make the

finding under subsection (1) that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant effects, and need not determine the feasibility of the alternatives presented below, per subsection (3).

7.3 OBJECTIVES OF THE PROJECT

While CEQA does not require that alternatives be capable of meeting all of the project objectives, their ability to meet most of the objectives is considered relevant to their consideration. The stated objectives of the project applicant are to:

- Redevelop the 2.54-acre site to allow for the creation of a residential waterfront project.
- Construct up to 56 residential units, including eight moderate below market rate units, in nine buildings.
- Provide pedestrian and bicycle circulation around and through the site.
- Enhance public connectivity to the Bay Trail by providing a new public trail segment.
- Provide a high-quality residential project to help improve the regional and Redwood City jobs/housing balance.
- Include sustainability features that help meet Redwood City sustainability goals.
- Provide for-sale housing (with affordable for-sale housing) to create opportunities for home ownership and community building.
- Locate housing outside of the Downtown area.
- Provide active recreation area, paths, boardwalk and amenities along the waterfront to increase Bay Trail resiliency.

The City of Redwood City has developed the following project objectives:

- Provide a high-quality residential project to help improve the regional and Redwood City jobs/housing balance.
- Include sustainability features that help meet Redwood City sustainability goals.
- Provide for-sale housing (with affordable for-sale housing) to create opportunities for home ownership and community building.
- Locate housing outside of the Downtown area.
- Provide active recreation area, paths, boardwalk and amenities along the waterfront to increase Bay Trail resiliency.

7.4 PROJECT ALTERNATIVES

7.4.1 Project Alternatives Considered but Rejected

The following alternative was considered for the project but rejected.

7.4.1.1 *Location Alternative*

There is no rule requiring an EIR to explore off-site project alternatives in every case. As stated in the Guidelines: "An EIR shall describe a range of reasonable alternatives to the project, or (emphasis added) to the location of the project, 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, and evaluate the comparative merits of the alternatives." (Guidelines, § 15126.6, subd. (a), italics added.) As this implies, "an agency may evaluate on-site alternatives, off-site alternatives, or both." (Mira Mar, supra, 119 Cal.App.4th at p. 491.). The Guidelines thus do not require analysis of off-site alternatives in every case. Nor does any statutory provision in CEQA "expressly require a discussion of alternative project locations." (119 Cal.App.4th at p. 491 citing §§ 21001, subd. (g), 21002.1, subd. (a), 21061.)

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". The proposed project is a high-residential development on East Bayshore Road. It is not likely that an alternative location within this area of Redwood City would substantially lessen the identified impacts, other than those related to biological resources. A site not near the bay and tidal habitats would likely avoid the project's impacts to biological resources and avoid the need for mitigation noted above. As a private development project proposed by a private applicant, the consideration of alternative locations is tempered by the fact the applicant has control over the current proposed site, and may not be able to obtain control of another location, unlike a public agency, which may employ eminent domain to acquire a site. For these reasons, an alternative location is not considered further.

7.4.2 Project Alternatives Considered for Further Analysis

7.4.2.1 *No Project Alternative*

The CEQA Guidelines [Section 15126(d)4] require an EIR specifically include 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 is not approved, based on current plans and consistent with available infrastructure and community services." [Section 15126.6(e)(2)] 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)]."

No Project – No Development Alternative

The No Project – No Development Alternative would retain the existing industrial development on the site. If the project site were to remain as is, there would be no new impacts.

Conclusion: Implementation of the No Project – No Development alternative would avoid the less than significant impacts with mitigation identified in this EIR. The No Project No-Development alternative would not, however, allow for new waterfront residential development to be constructed on the project site. A project without residential development would not address RHNA needs or address the City Council's strategic priority for housing This alternative does not meet any of the objectives of the proposed project.

No Project- Existing Plans and Policies Alternative

The No Project-Existing Plans and Policies Alternative would assume the currently proposed project is not approved, and a different project is proposed based on what the General Plan currently allows.

The project site is designated as *RC-Commercial Regional* under the City of Redwood City's General Plan adopted in 2010. The *RC-Commercial Regional* designation provides opportunities for general retail, commercial services, restaurants, lodging, vehicle sales and service, commercial recreation, professional offices, medical and financial institutions, and other similar business activities. Representative development forms include large retail centers anchored by one or more major tenants, large stand-alone retail stores, hospitality uses, and automobile dealerships. Uses specifically prohibited include commercial warehousing, mini-storage, trucking and transportation-related uses, and heavy manufacturing. The maximum FAR is 1.0, and the maximum height is five stories within the U.S. 101 corridor and three stories in all other locations.

An alternative project that is consistent with the General Plan would allow for commercial development on the property. The alternative project could potentially be similar in scale to or larger than the proposed development, as allowed under the General Plan. Based on allowed development capacities on the site, an alternative project could construct up to 110,640 square feet of commercial uses, which would result in a greater level of development than the proposed project.

The environmental effects of redevelopment the site with a different development project consistent with the General Plan would likely result in similar construction and operational effects as the proposed project. To the extent more intense development were to be proposed beyond what is currently pending with the subject project application, construction and operational effects could be increased. Additionally, this alternative would not provide affordable housing to the City.

Conclusion: Implementation of the existing plans and policies "No Project" alternative would not avoid the less than significant impacts with mitigation identified in this EIR.

7.4.2.2 *Design Alternative – Removal of Cantilevered Portions of Public Trail*

The project proposes to construct a public trail along the northern boundary of the site, providing access between E. Bayshore Road and a planned public trail segment to be located on the adjacent property to the east. As described in Section 3.4 Biological Resources, portions of the trail would be

cantilevered to overhang 0.04 acre (or roughly 1,742 square feet) of muted tidal marsh habitat. Although these portions of the trail would not result in direct impacts to the habitat from grading or construction activities, shading from the cantilevered structures would result in long-term degradation of this habitat, which provides potential foraging habitat for salt marsh harvest mice and salt marsh wandering shrews. This habitat is of low quality due to its small size and isolation from higher quality marsh habitats to the north, but it is possible that individual salt marsh harvest mice and salt marsh wandering shrews occur here. Due to the rarity of the salt marsh harvest mouse and salt marsh wandering shrew, project impacts to their habitat would be considered significant, even though the existing habitat is of low quality.

This project alternative would redesign the proposed public trail to eliminate any cantilevered structures overhanging the muted tidal marsh habitat. The cantilevered structures are primarily associated with two "nodes" intended as observation areas or other passive recreational use by trail users, as well as a small portion of the trail itself near the project's western boundary (refer to Figures 2.0-4 and 3.4-1). Eliminating the cantilevers structures would avoid the impact to muted tidal marsh habitat. It should be noted that this impact would be reduced to a less than significant level under the currently proposed project with implementation of mitigation measures (MM BIO-5.1).

This alternative would still meet all project objectives, but would reduce passive recreational opportunities for users of the trail by eliminating areas for resting, gathering, and viewing the San Francisco Bay. Additionally, removing the cantilevered portions of the trail may require a reduction to the width of the trail in some locations, which could result in inconsistencies with BCDC requirements for trail design.

Conclusion: Implementation of the Design Alternative – Removal of Cantilevered Portions of the Public Trail would avoid the need to mitigate impacts to muted tidal marsh habitat. All other impacts of the project would remain the same.

7.4.2.3 *Reduced Scale Alternative*

The majority of the project's impacts are a result of general development activity that would occur with nearly any project on the site, regardless of size (Impacts BIO-1 through BIO-4, Impact BIO-6, and Impacts HAZ-2 and HAZ-2). However, impacts related to VMT (Impact TRN-2) and construction air quality emissions (Impact AIR-1) could potentially be reduced by reducing the scale of the project. To reduce these impacts and potentially avoid the need for mitigation, a reduced scale alternative is considered.

The Redwood City Transportation Analysis Manual identifies certain projects that would be assumed to have a less than significant VMT impact based on suggestions from the State of California's Office of Planning and Research (OPR) Technical Advisory (December 2018, pages 13-15). "Small projects", defined as generating 150 or fewer average daily vehicle trips, can be assumed to result in a less than significant VMT impact. The City's Transportation Analysis Manual identifies the screening threshold for multi-family residential projects as roughly 20 units. Reducing the scale of the project to 20 or fewer units, therefore, would place the project below the City's screening threshold, avoiding the need to mitigate the project's VMT impacts. It should be noted that this impact would be reduced to a less than significant level under the currently proposed project with implementation of mitigation measures (MM TRN-2.1).

While reducing the scale of the project would reduce construction activity to a certain extent, the phases of construction requiring the heaviest equipment (therefore resulting in the greatest emissions), such as site grading, would still be required to a similar extent as the proposed project. Mitigation measures similar to those identified for the proposed project (MM AIR-2.1), which require the use of low-emitting construction equipment, would still be required to reduce impacts to less than significant levels.

Because less space would be needed to accommodate the lower number of proposed units, reducing the scale of the project would likely allow for a redesign of the proposed public trail in a manner that would remove the need for cantilevering, therefore avoiding the impact to 0.04 acre (or roughly 1,742 square feet) of muted tidal marsh habitat.

Conclusion: Implementation of Reduced Scale Alternative would avoid the need for mitigation for project-related VMT impacts and may avoid impacts to muted tidal marsh by allowing for a redesign of the proposed public trail. However, this alternative would still be required to implement mitigation measures for all other identified impacts on the site. This alternative would meet most of the project objectives, albeit to a lesser degree than the proposed project. However, this alternative would reduce the amount of housing to be provided in the City, including a potential reduction in the amount of proposed affordable housing.

SECTION 8.0 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The CEQA Guidelines state that an EIR shall identify an environmentally superior alternative. Based on the above discussion, the environmentally superior alternative is the No Project – No Development Alternative, as it would avoid all impacts associated with the project. Section 15126.6(c)(2), however, states that "if the environmentally superior alternative is the No Project Alternative, the EIR shall also identify an environmental superior alternative among the other alternatives." In addition to the No Project – No Development Alternative, the Reduced Scale Alternative would be environmentally superior to the project as it would avoid the need to mitigate the project's VMT impacts and may also avoid impacts to 0.04 acre of muted tidal marsh.

SECTION 9.0 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 10.0 LEAD AGENCY AND CONSULTANTS

10.1 LEAD AGENCY

City of Redwood City
Community Development Department
Mark Muenzer, Community Development and Transportation Director
Curtis Banks, Contract Principal Planner

10.2 CONSULTANTS

David J. Powers & Associates, Inc.
Environmental Consultants and Planners
Akoni Danielsen, Principal Project Manger
Michael Lisenbee, Senior Project Manager
Desiree Dei Rossi, Associate Project Manager
Ryan Osako, Graphic Artist

Fehr & Peers
Transportation Consultants

H.T Harvey & Associates
Consulting Biologists

Hexagon Transportation Consultants
Transportation Consultants

Illingworth & Rodkin, Inc.
Air Quality and Acoustical Consultants

Langan Engineering and Environmental Services, Inc.
Hazardous Materials Consultants

PaleoWest Consultants
Cultural and Historical Consultants

SECTION 11.0 ACRONYMS AND ABBREVIATIONS

AAC	Architectural Advisory Committee
ABAG	Association of Bay Area Governments
ACM	Asbestos containing material
ADA	Americans Disability Act
ADWF	average dry weather flow
AIA	Airport Influence Area
ALUC	Airport Land Use Commission
ALUCP	Comprehensive Airport Land Use Compatibility Plan
BAAQMD	Bay Area Air Quality Management District
Bay Delta Plan Amendment	Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary
BCDC	San Francisco Bay Conservation and Development Commission
bgs	below ground surface
Btu	British thermal units
CalARP	California Accidental Release Prevention
CalEEMod	California Emissions Estimator model
CalEPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Protection
Cal/OSHA	California Department of Industrial Relations, Division of Occupational Safety and Health
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CARE	Community Air Risk Evaluation
CBC	California Buildings Standards Code
C/CAG	City/County Association of Governments of San Mateo County
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CFC	Chlorofluorocarbons
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CG	General Commercial

CGS	California Geological Survey
CH_4	Methane
CMA	Congestion Management Agency
CMP	Congestion Management Program
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	Carbon monoxide
CO_2	Carbon dioxide
CO_2e	CO_2 equivalent
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CIWMP	Countywide Integrated Waste Management Plan
CRHR	California Register of Historical Resources
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
DPM	Diesel Particulate Matter
DSOD	Division of Safety of Dams
DTSC	California Department of Toxic Substances Control
EIR	Environmental Impact Report
EO	Executive Order
EOP	Emergency Operations Plan
EPA	United States Environmental Protection Agency
ESA	Environmental Site Assessment
ESL	environmental screening levels
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FHSZ	Fire Hazard Severity Zones
FIRM	Flood Insurance Rate Maps
FMMP	California Department of Conservation's Farmland Mapping and Monitoring Program
FTA	Federal Transit Administration
GHG	Greenhouse gases

GWP	Global warming potential
HDPE	high-density polyethylene
HFCs	Hydrofluorocarbons
HRAC	Historic Resources Advisory Committee
HVAC	Heating, ventilation, and air conditioning
LID	Low Impact Development
LOS	Level of Service
LRA	local responsibility areas
LT	Long-term noise measurement
LZ-3	Title 24 Lighting Zone
MBTA	Migratory Bird Treaty Act
mgd	million gallons per day
Mg/kg	milligrams per kilogram
MLD	Most Likely Descendant
MND	Mitigated Negative Declaration
Mpg	Miles per gallon
MRP	San Francisco Bay Region Municipal Regional Stormwater NPDES Permit
MT	Metric tons
MTC	Metropolitan Transportation Commission
MUWF	Mixed Use Waterfront
NAHC	Native American Heritage Commission
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act of 1966
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NWIC	Northwest Information Center
N_2O	Nitrous oxide
NOD	Notice of Determination
NOI	Notice of Intent
NOP	Notice of Preparation
NO_x	Nitrogen oxides
NO_2	Nitrogen Dioxide
OCP	organochlorine pesticides

OHW	Ordinary high water
OITC	Outdoor-Indoor Transmission Class
OPR	Office of Planning and Research
O_3	Ground-level ozone
PCB	Polychlorinated biphenyls
PCE	Peninsula Clean Energy
PDA	Priority Development Areas
PFCs	Perfluorocarbons
PG&E	Pacific Gas and Electric Company
PJD	Preliminary Jurisdictional Delineation
PM	Particulate matter
$PM_{2.5}$	Fine Particulate Matter
PM_{10}	Coarse Particulate Matter
PPV	Peak Particle Velocity
PWWF	peak wet weather flow
RCRA	Resource Conservation and Recovery Act
RCSD	Redwood City Elementary School District
RHNA	Regional Housing Need Allocation
ROG	Reactive organic gases
RWQCB	Regional Water Quality Control Board
SamTrans	San Mateo County Transit District
SB	Senate Bill
SCS	Sustainable Communities Strategy
SFHA	Special Flood Hazard Areas
SF_6	sulfur hexafluoride
SHMA	Seismic Hazards Mapping Act
SMARA	Surface Mining and Reclamation Act
SMCEHD	San Mateo County Environmental Health Department
SMDCP	Stormwater Management and Discharge Control Program
SMGB	State Mining and Geology Board
SMP	Site Management Plan
SO_x	Sulfur oxides
SRA	state responsibility areas

SR	State Route
ST	Short-term noise measurement
STC	Sound Transmission Class
SVCW	Silicon Valley Clean Water
SVOC	Semi-volatile organic compounds
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TA	Transportation Analysis
TACs	Toxic Air Contaminants
TCR	Tribal Cultural Resources
TDM	Travel Demand Management
TIF	Transportation Impact Fee
TPHd	total petroleum hydrocarbons as diesel
TPHg	total petroleum hydrocarbons as gasoline
TPHmo	total petroleum hydrocarbons as motor oil
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
UST	Underground storage tanks
UWMP	urban water management plan
VMT	Vehicle Miles Traveled
VOCs	volatile organic compounds
Water Board	San Francisco Bay Regional Water Quality Control Board
Williamson Act	The California Land Conservation Act
WSCP	Water Shortage Contingency Plan
WUI	Wildland-urban interface
2017 CAP	Bay Area 2017 Clean Air Plan