

## **PURPOSE OF DOCUMENT:**

This Initial Study/Mitigated Negative Declaration is a public document that assesses the potential environmental effects of the North Main Street Precise Plan (project) as required by the California Environmental Quality Act (CEQA) and in compliance with the State CEQA Guidelines (14 California Code of Regulations 15000 et seq.). It serves as an information document to be used in the local planning and decision-making process; it does not recommend approval or denial of the project. The City of Redwood City (City), the state Lead Agency for the project under CEQA, must evaluate the environmental effects of the project when considering whether to approve it. The City has prepared this IS/MND for the project because potential impacts related to the project are considered less than significant with the incorporation of mitigation measures.

## **PROJECT INFORMATION:**

**Project Title:** North Main Street Precise Plan

**Lead Agency:** City of Redwood City  
Community Development Services Department  
1017 Middlefield Road  
Redwood City, CA 94064

**Contact Person:** Sailesh Mehra, Associate Planner  
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**Project Applicant:** John Baer (Matteson Realty Services) and City of Redwood City

**Project Location:** 305, 333, 369, and 373 Main Street and 1001 Veterans Boulevard

**Existing General Plan Designation:** Commercial – Office Park

**Existing Zoning:** CG (General Commercial) and IP-V (Industrial Park – Combined Vehicular)

## **DESCRIPTION OF PROJECT:**

The proposed project is a Precise Plan and General Plan and Zoning Map Amendments for properties located at 305, 333, 369, and 373 Main Street and 1001 Veterans Boulevard in Redwood City, California (see Figure 1 for a general location map). The proposed General Plan Amendment would change the project area's current land use designation from Commercial – Office Park to Heavy Commercial – Mixed Use. The proposed Zoning Map Amendment would change the project area's current zoning designations from Industrial Park – Combined Vehicular (IP-V) and General Commercial (CG) districts to the Planned Community (P) District, which is the zoning designation given to Precise Plan properties or areas.

The North Main Street Precise Plan is a regulatory document that would amend the Redwood City Zoning Code and implement the Redwood City General Plan. A major objective of the Precise Plan is to create a strong physical link between two important evolving districts in the City: the Downtown and the Bayfront. Infill development and pedestrian- and bicycle-oriented access improvements within the Precise Plan area would create a spine between these two districts. The Precise Plan provides for increased-density infill residential and office land uses, limited locally-oriented commercial space, frontage streetscape improvements, and a publicly-accessible Redwood Creek trail segment. A potential crossing of U.S. 101 is anticipated to eventually connect this trail segment with a future pedestrian pathway on in the Bayfront area the east side of U.S. 101. The trail crossing of U.S. 101 is a separate project that would undergo environmental review when more fully developed.

The Precise Plan area is approximately 9.5 acres in size, and consists of nine individually owned parcels. These parcels are shown in Figure 2. The Precise Plan sets forth development standards (i.e., land use, height, setbacks, and density), design guidelines, and implementation policies and administrative procedures the City will follow in processing development applications within the Precise Plan area. Key elements include minimum and maximum density, heights, setbacks, architectural form, and specific requirements for frontage and creek trail-related improvements. The Plan also describes required capital improvements that focus on streetscape frontage, street crossings, undergrounding of above-ground utility lines, and the Redwood Creek trail. Chapter II of the Precise Plan, which describes the proposed development standards and urban design guidelines, is included in this IS/MND as Appendix A. Chapter II also includes figures showing Precise Plan land use areas and other key features, and conceptual design schematics for the proposed creekside trail and Main Street frontage. A complete copy of the Draft North Main Street Precise Plan is available at the Redwood City Planning Department and on the City's website: [www.redwoodcity.org](http://www.redwoodcity.org) (click on the "I want to" button).

### **SURROUNDING LAND USES AND SETTING:**

The project site is bordered by Redwood Creek to the east, Veterans Boulevard to the south, office/commercial uses to the west, and U.S. Highway 101 to the north. Redwood Creek is in its natural state in this area of Redwood City; it daylights from a culvert near the southeast corner of Bradford and Main Streets, then passes under Veterans Boulevard and ultimately merges with San Francisco Bay at the eastern end of Bair Island. The eastern bank of Redwood Creek backs up to the rear of the Mervyn's Plaza development. Downtown Redwood City is approximately 1/3 mile to the south of the project site. The Kaiser Permanente Medical Center complex is located southeast of the site on the south side of Veterans Boulevard between Walnut and Maple Streets.

### **OTHER AGENCIES WHOSE APPROVAL IS REQUIRED:**

Other agencies that may use this Initial Study/Negative Declaration for permits or approvals for components or elements of the project include:

- U.S. Army Corps of Engineers (USACE)
- Regional Water Quality Control Board
- California Department of Fish and Game

### **REFERENCES:**

The following information sources were used in the preparation of this document:

*Agricultural Preserves Map.* California Department of Conservation, Division of Land Resource Protection, 2001.

*Alquist-Priolo Earthquake Fault Zones.* July 2006. Association of Bay Area Governments.

*Bay Area Air Quality Management District CEQA Guidelines: Assessing the Air Quality Impacts of Projects and Plans.* December, 1999.

*Biological Site Assessment for the North Main Street Precise Plan.* Prepared by TRA Associates, Inc., January 2007. Included in this Draft IS/MND as Appendix B.

*C.3 Stormwater Handbook.* San Mateo Countywide Stormwater Pollution Prevention Program. May 2005.

*California State Water Resources Control Board Section 303(d) List of Water Quality Limited Segments, 2002.* Approved by U.S. Environmental Protection Agency, July 2003.

*Draft Environmental Impact Report for the Kaiser Permanente Redwood City Medical Center Master Plan.* Prepared by EIP Associates, March 2003.

*Draft and Final Environmental Impact Reports for the Redwood City Downtown Precise Plan.* Prepared by Wagstaff and Associates. DEIR – November 2006; FEIR – January 2007.

*Draft North Main Street Precise Plan.* Prepared by Bottomley Associates, February 2007.

*Draft Redwood City Downtown Precise Plan.* 2006. Prepared by Freedman Tung and Bottomley.

*Feasibility-Level Geotechnical Investigation for 333 Main Street Residential Development, Redwood City, CA, December 2005.* Prepared by Lowney Associates.

*Flood Insurance Rate Map (FIRM) for City of Redwood City.* Community Panel Number 060325 0011 B. Produced by Federal Emergency Management Agency. Effective Date: May 17, 1982.

*Hazardous Waste and Substances Site List (January 2007).* Maintained by California State Department of Toxic Substances Control.

*Important Farmland In California Map.* California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program, 2004.

*North Main Street Precise Plan Environmental Noise Study.* Prepared by Illingworth & Rodkin, January 2007. Included in this Draft IS/MND as Appendix C.

*Phase I Environmental Site Assessment, 333 Main Street, Redwood City, CA, November 2005.* Prepared by Lowney Associates.

*Redwood City Strategic General Plan.* 1990.

*Redwood City Zoning Ordinance.* 2007.

*State of California Seismic Hazard Zones Map (Palo Alto Quadrangle).* October 18, 2006. Issued by California Geological Survey.

*Trip Generation Estimate for the North Main Street Precise Plan, Redwood City, CA, December 2006.* Prepared by Fehr & Peers Transportation Consultants. Included in this Draft IS/MND as Appendix D.

## **LIST OF PREPARERS:**

### **Redwood City Staff**

Valerie J. Young, AICP, Contract Planner  
Maureen Riordan, Senior Planner  
Sailesh Mehra, Associate Planner  
Richard Haygood, City Traffic Engineer  
Jon Lynch, City Engineer

### **Consultants to City**

Fehr & Peers Associates, Inc. – Transportation Consultants  
Illingworth & Rodkin, Inc. – Noise Consultants  
TRA Environmental Sciences, Inc. – Biological Resources Consultants  
Bottomley Design & Planning – Preparers of North Main Street Precise Plan

Insert Figure 1

Insert Figure 2

**ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:**

The environmental factors checked below would be potentially affected by this project as indicated by the checklist and responses contained on the following pages.

- |                                                                   |                                                                        |                                                            |
|-------------------------------------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------|
| <input checked="" type="checkbox"/> Aesthetics                    | <input type="checkbox"/> Agriculture Resources                         | <input checked="" type="checkbox"/> Air Quality            |
| <input checked="" type="checkbox"/> Biological Resources          | <input checked="" type="checkbox"/> Cultural Resources                 | <input checked="" type="checkbox"/> Geology /Soils         |
| <input checked="" type="checkbox"/> Hazards & Hazardous Materials | <input checked="" type="checkbox"/> Hydrology / Water Quality          | <input checked="" type="checkbox"/> Land Use / Planning    |
| <input type="checkbox"/> Mineral Resources                        | <input checked="" type="checkbox"/> Noise                              | <input checked="" type="checkbox"/> Population / Housing   |
| <input checked="" type="checkbox"/> Public Services               | <input checked="" type="checkbox"/> Recreation                         | <input checked="" type="checkbox"/> Transportation/Traffic |
| <input checked="" type="checkbox"/> Utilities / Service Systems   | <input checked="" type="checkbox"/> Mandatory Findings of Significance |                                                            |

**DETERMINATION:**

On the basis of this initial evaluation:

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

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

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

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

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

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\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

# INITIAL STUDY CHECKLIST AND RESPONSES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>1. AESTHETICS.</b> Would the project:				
(a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**ANALYSIS.** The project site is not within, adjacent to, nor within the vicinity of a scenic vista, scenic resources or a state scenic highway. Therefore, the development anticipated under the proposed Precise Plan would not affect such resources.

The existing Precise Plan area and its neighboring area to the west (extending to Brewster Avenue) can be described as suburban-scale office buildings and landscaped parking lots. Auto service businesses and auto dealers are concentrated to the west, extending along Price Avenue and Convention Way to the Whipple Avenue overpass. Existing building heights range from one to three stories, and exhibit a variety of architectural styles and building ages. Nearby 5-6 story buildings are located at the Kaiser Permanent Medical Center southeast of the Precise Plan area across Veterans Boulevard, a bank building on the south side of Veterans Boulevard near Middlefield Road, and the San Mateo Credit Union office building on Convention Way adjacent to the City-owned parcel that forms the northern boundary of the Precise Plan area.

Existing development within the Precise Plan area includes: a vacant, one-story former school district office building with subsurface parking; a partially-occupied glass/metal office building (formerly the “Niku” building); a two-story medical office building; a new two-story office building currently under construction; and Carl’s J.r and Straw Hat Pizza restaurants. There are two City-owned parcels, one with an aboveground enclosed stormwater pump station, and an undeveloped parcel at the north end of the Precise Plan area. Most buildings within the Precise Plan area are oriented to on-site surface parking areas. The rear, service-oriented side of the Mervyn’s Plaza shopping center is located across Redwood Creek to the east.

The portion of Redwood Creek within the Precise Plan area is a significant visual and environmental resource in the area. This is the only reach of Redwood Creek within the urban area of Redwood City that is in its natural state. Upstream the creek is either culverted or contained within concrete structures. Within the Precise Plan area, the creek supports a range of flora and fauna associated with its designation as a “northern coastal salt marsh” natural community (see Biological Resources section for further discussion of this designation). However, the creek is largely inaccessible to the public in this area; adjacent development on both the east and west sides of the creek turns its back on the creek, with parking, service, and/or loading areas located along the top of the bank. The Precise Plan proposes to enhance the public accessibility and visibility of the creek with a creekside trail, and improve the appearance of buildings and uses that face the creek.

The proposed Precise Plan would allow higher density and taller buildings along Veterans Boulevard, where they would be consistent with other City development planning efforts. These include the Draft Downtown Precise Plan, which would permit buildings up to eight stories in height immediately south of Veterans Boulevard, and the planned redevelopment of the Kaiser Permanente Medical Center, which could include a new hospital up to 10 stories in height and four new medical office buildings up to five stories in height. The Plan's Urban Design Guidelines would enable the North Main Street area to develop with less traditional architectural forms and styles, as compared to infill sites Downtown or those along Woodside Road or El Camino Real adjacent to single-family residential areas. The intent of the Design Guidelines is to create an attractive mixed use neighborhood that will stand the "test of time" rather than the latest trend in architectural fashion. Compliance of projects within the Precise Plan area with the Urban Design Guidelines will ensure that the building orientation and design, site and landscape improvements, surface treatment and roof design, and streetscape approach will all be consistent with each other and reflect the City's "nice places" urban design policies. Therefore, the Precise Plan would improve rather than degrade the existing visual character of the area, and would not result in significant visual impacts.

With regard to light sources, the proposed Precise Plan would enable new development to occur which may include a range of exterior light sources. Collectively, these varied sources have the potential to create new sources of light and glare that could affect residential developments that may occur within the Precise Plan area, as well as the ambiance of Redwood Creek. The source of the potential impact would be from the travel of direct light rays beyond the project site as well as a general increase in the area's ambient lighting. This includes exterior light sources as well as spill lighting that is cast from the interior of buildings onto adjacent properties. The use of downward facing and shielded fixtures for exterior building and parking lot illumination would prevent the potential negative impacts of exterior lighting by reducing the amount of spill light that would be emitted.

The following mitigation measure would ensure that projects developed under the Precise Plan would not create new sources of substantial light or glare that would adversely affect day or nighttime views in the area. Implementation of this measure would reduce potential light and glare impacts to a less than significant level.

**Mitigation Measure #1:** Project sponsors shall submit an exterior lighting plan that includes only exterior lighting fixtures that do not allow direct light rays to leave the project site and which also do not allow direct light sources (incandescent, fluorescent, or other forms of electric illumination) to be directly visible from off-site locations. The plan shall include a photometric site plan and be subject to review and approval by the Community Development Services Department.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
<b>2. AGRICULTURE RESOURCES.</b> Would the project:				
(a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**ANALYSIS.** The Precise Plan area does not have lands that are designated Prime Farmland, Unique Farmland, or Farmland of Statewide Significance. In addition, the project area is not zoned for agricultural use, nor is any of the project area under Williamson Act contracts. Therefore, the project would not result in the loss of agricultural land, and no mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
<b>3. AIR QUALITY.</b> Would the project:				
(a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**ANALYSIS.** According to the Bay Area Air Quality Management District's (BAAQMD) *CEQA Guidelines: Assessing the Air Quality Impacts of Projects and Plans* (1999), projects have the potential for air quality impacts in both the construction and operation phases. Following is a discussion of potential air quality impacts related to project construction and operation.

**Construction Dust and Equipment Exhaust Emissions:** The Precise Plan would permit demolition and new construction activities, which would generate fugitive dust (which includes the respirable fraction known as PM<sub>10</sub>). Excavation activities associated with construction would entail earth disturbance and potential dust generation. These activities could result in localized dust nuisances near the construction activity.

Because of the great variability in construction emissions (dependent on the level of activity, the specific operations taking place, the equipment being operated, local soils, weather conditions, and other factors), the BAAQMD emphasizes the implementation of effective and comprehensive control measures rather than detailed quantification of construction emissions. BAAQMD considers any project's construction-related impacts to be less-than-significant if required dust control measures are implemented. BAAQMD has a three-tier approach to control measures: Basic Measures (implemented at all construction sites regardless of size), Enhanced Measures (construction sites greater than four acres), and Optional Measures (if further emission reductions are deemed necessary by the Lead Agency). For construction areas of less than four acres, BAAQMD would require implementation of Basic Control Measures, which are shown below. Most of the Precise Plan parcels are less than four acres in size, so the Basic Control Measures would be required by the City to be implemented during construction.

**Mitigation Measure #2:** Implementation of the following BAAQMD Basic Measures as part of each project will minimize PM<sub>10</sub> emissions and will reduce construction-related air quality impacts to a less than significant level.

- Water all active construction areas at least twice daily.
- Cover all trucks hauling soil, sand and other loose materials *or* require all trucks to maintain at least two feet of freeboard.
- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.
- Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites.
- Sweep streets daily if visible soil material is carried onto adjacent public streets.

If parcels are assembled to create a building site of greater than four acres, the City would require that the Enhanced Measures be implemented during construction.

**Operational Emissions:** Motor vehicles traveling to and from a project represent the primary source of air pollutant emissions associated with project operations. BAAQMD thresholds for vehicle-related emissions relate to local carbon monoxide concentrations and total emissions. According to a trip generation analysis prepared for the Precise Plan (see Appendix A), development under the proposed Precise Plan would result in a net decrease in daily trips to and from the Precise Plan area. Therefore, none of the BAAQMD thresholds for air pollutant emissions associated with project operations would be met, and the Precise Plan would not have a significant air quality impact from operations.

No odor impacts would be expected with operation of the land uses anticipated under the Precise Plan. There are no sensitive receptors located within the Precise Plan vicinity, and no noxious odor sources are located within the vicinity of the Plan area.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
<b>4. BIOLOGICAL RESOURCES.</b> Would the project:				
(a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
(c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d) 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**ANALYSIS.** The analysis and conclusions described in this section are based on a reconnaissance-level biological assessment prepared for the Precise Plan by TRA Environmental Sciences, Inc. (see Appendix B, which also contains Latin nomenclature for species discussed in this section). The analysis is based on a reconnaissance-level field survey conducted on December 11, 2006; review of the California Natural Diversity Database (CNDDDB) for special status species in the area; review of the California Native Plant Society (CNPS) On-Line Inventory; and other local plant and wildlife information resources.

The project site is located adjacent to Redwood Creek, which flows into San Francisco Bay approximately three miles west of the project site. The project properties are situated at approximately five feet above sea level. Redwood Creek is a perennial creek that flows from the foothills in the west, through Redwood City and into San Francisco Bay. In the vicinity of the project site, Redwood Creek is influenced by tidal action. The creek begins in the foothills in Woodside as an open creek, but through the majority of its route through Redwood City it flows within underground culverts. Redwood Creek daylights from its underground culvert near the northwest corner of Bradford and Main Streets, approximately 500 feet upstream of the project site.

The project site is approximately one-quarter mile east of Bair Island, a 2,600-acre open space area within the Don Edwards San Francisco Bay National Wildlife Refuge (see Figure 1 in Appendix B). Bair Island consists primarily of northern coastal salt marsh bordering the San Francisco Bay. Though portions of the island are owned by the State of California, the entire island is managed by the U.S. Fish and Wildlife Service (USFWS) as a Wildlife Refuge. Bair Island provides critical habitat for many species, such as the endangered California clapper rail and the salt marsh harvest mouse, and is important habitat for many migratory birds.

**Habitat Types:** The undeveloped portion of the Precise Plan properties adjacent to Redwood Creek consists of medium-high tidal marsh, supporting a mix of both native and non-native herbaceous plants (approximately 1.7 acres of the Precise Plan area, shown on Figure 3 in Appendix B). This undeveloped portion is considered to be classified as northern coastal salt marsh (see *Special Status Natural Communities and Plant Species* discussion

later in this section). Northern coastal salt marsh habitats are exposed to frequent tidal inundation by brackish and saline water. The species composition in these habitats is determined by both inundation depth and water salinity. Within the wetland system, salinity fluctuates with season and with distance from respective fresh or saline water sources. Common herbaceous species occurring within the wetland include California cordgrass, pickleweed, jaumea, alkali heath, and marsh gumplant, among others. California cordgrass is able to tolerate longer and deeper submergence than salt grass and pickleweed. However, the latter two species are able to tolerate higher salinities. The coastal salt marsh within Redwood Creek along the project reach is heavily impacted by urbanization and was observed to have a large amount of accumulated garbage within the vegetation and concrete rubble in the creek. The CNDDDB search does not list the project reach for this habitat type, but it does consider the northern coastal salt marsh at Bair Island as threatened.

There are two Precise Plan areas along the creek that would not be considered salt marsh habitat. The northernmost parcel, owned by the City and adjacent to Highway 101, is composed mostly of ruderal vegetation such as fennel and harding grass, with various ornamental trees and shrubs. Just to the south, bordering the creek, there is a thin strip of vegetation between the creek and a parking lot. This vegetation largely consists of ice plant, with a thin strip of coastal marsh vegetation adjacent to the high water mark. These areas account for approximately 0.66 acres of the Precise Plan area.

The developed portion of the Precise Plan includes various commercial uses surrounded by parking lots. Bordering and within the parking lots there are landscape plants such as ornamental pine and palm trees, bottlebrush, and red gum trees. A full list of plant species observed during the field visit is provided in Appendix B.

**Wildlife:** Within or adjacent to the coastal marsh, wildlife observed includes various birds such as mallard, snowy egret, common goldeneye, ring-billed gull, American coot, and salt marsh common yellowthroat. Within the commercially developed areas along North Main Street the following bird species were observed: Anna's hummingbird, Townsend's warbler, and Yellow-rumped warbler. A full list of wildlife species observed during the field visit is provided in Appendix B.

Species that were not detected during the site visit, but may be present in the coastal marsh associated with Redwood Creek include California vole, salt marsh wandering shrew, and salt marsh harvest mouse. Small rodents attract raptors that hunt at night such as short-eared owl and barn owl, as well as day-hunting raptors such as red-tailed hawk. Birds that may use the marsh habitat on site for foraging or nesting include California black rail, Alameda song sparrow, and California clapper rail, among others. Other raptors that may use the Redwood Creek corridor for foraging include Cooper's hawk, Northern harrier, red-shouldered hawk, American kestrel, peregrine falcon, and merlin. Opportunistic species associated with urban creeks include raccoon and opossum. The trees and shrubs on both the urban and undeveloped portions of the site may provide nesting habitat for a variety of birds, including raptors such as red-tailed hawk, Cooper's hawk and passerines such as American robin and bushtit, among others. In addition, the pine and palm trees, bridges, and other structures on site provide potentially suitable habitat for several bat species.

Wildlife movement includes migration (i.e., usually one way per season), inter-population movement (i.e., long-term genetic flow) and small travel pathways (i.e., daily movement corridors within an animal's territory). While small travel pathways usually facilitate movement for daily home range activities, such as foraging or escape from predators, they also provide connection between outlying populations and the main corridor, permitting an increase in gene flow among populations. These linkages among habitats can extend for miles and occur on a large scale throughout California. Habitat linkages facilitate movement between populations located in discrete areas and populations located within larger habitat areas.

The Precise Plan property is situated in an area of commercial/retail development, with a corridor of creek and tidal marsh habitat that may provide limited wildlife movement. The riparian corridor of Redwood Creek provides a movement corridor from San Francisco Bay up to where the creek is culverted underground approximately 500 feet upstream of the project reach. On both local and larger scales, the property is limited in its function as a wildlife corridor due to extensive urbanization within the property boundary and in the surrounding area. However, the property's proximity to the Don Edwards National Wildlife Refuge on Bair Island and the San Francisco Bay makes it very accessible to migratory birds. Other wildlife that likely move through the corridor between urban areas and the refuge, especially at low tide, include raccoons, red fox, and opossum.

**Special-Status Species:** Special-status *plant species* include those listed as Endangered, Threatened, Rare, or as Candidates for listing by the USFWS, the California Department of Fish and Game (CDFG), and the CNPS. The CNPS listing is sanctioned by the CDFG and serves essentially as their list of candidate plant species. Special-status *natural communities* are those that are considered rare in the region, support special status plant or wildlife species, or receive regulatory protection. Special-status *animal species* include those listed as Endangered, Threatened, Rare, or as Candidates for list by the USFWS and/or CDFG. Special- status species that were considered for their potential to occur onsite are listed in Table 1 in Appendix B. Species that are considered to have either a moderate or high potential for occurring onsite are discussed below.

Special-Status Natural Communities and Plant Species: The northern coastal salt marsh is observed on site and is considered a threatened natural community by the CNDDB and as defined under CEQA. No special-status plant species were observed. Three special-status plant species have the potential to occur due to the presence of moderately suitable habitat and soils: Congdon's tarplant, coastal marsh milk vetch, and saline clover. These species would not have been in bloom during the December site visit and, therefore, would have been difficult to detect. As noted below, follow-up focused plant surveys are recommended as a mitigation measure to determine whether these species are present on site.

Special Status Wildlife Species: Twelve special-status wildlife species have some potential to occur on site. Of those twelve species, there are five wildlife species that have a high probability of occurring on the project site. These twelve species and their potential to occur onsite are listed below. Additional detailed descriptions of these species are provided in Appendix B.

- *Salt Marsh Common Yellowthroat* is a non-migratory California Species of Concern that has undergone a severe decline in its population of the past 100 years due to habitat loss and alteration. A single common yellowthroat was observed on site during the December 2006 field visit. This species is considered to have a *high* potential for occurrence within the salt marsh on site.
- *Alameda Song Sparrow* is a California Species of Concern whose optimum habitat consists of coastal salt marsh. This species has *high* potential for occurrence within the salt marsh on site.
- *California Clapper Rail* is indigenous to the estuarine marshlands of San Francisco Bay, and is classified as Endangered by the Federal and California governments. This species has *high* potential for occurrence within the salt marsh on site.
- *Salt Marsh Harvest Mouse* was listed as a Federal Endangered species in 1970 and California Endangered species in 1971. This species is considered to have a *high* potential to occur within the salt marsh on site.
- *Salt Marsh Wandering Shrew* is a California Species of Concern, currently confined to the salt marshes of the South San Francisco Bay. This species is considered to have a *high* potential to occur within the salt marsh on site.
- *California Black Rail* is classified as Threatened by the CDFG. This species is considered to have *moderate* potential for occurrence within the salt marsh on site.
- *Great Blue Heron* is identified by the CDFG as a species that is apparently secure in California but enough factors exist to cause some concern (e.g., there is some threat or habitat is diminishing). This species is considered to have *moderate* potential for occurrence within the salt marsh on site.
- *California Least Tern* is classified as Endangered by both the Federal and California governments. There is *moderate* potential for occurrence of this species on the project site.
- *Short-Eared Owl* is a California Species of Concern and is one of the most widely distributed owls. This species has *moderate* potential for occurrence within the salt marsh bordering Redwood Creek.

- *Northern Harrier* is a California Species of Concern in the western part of the United States. This species is considered to have *moderate* potential for occurrence with the salt marsh on site.
- *White-Tailed Kite* is identified as Threatened within California by the CDFG. This species is considered to have *moderate* potential for occurrence within the salt marsh on site.
- *Black Crowned Night Heron* is identified as Threatened within California by the CDFG. This species is considered to have *moderate* potential for occurrence within the salt marsh on site.

**Other Species of Note:** The *Monarch butterfly* is listed by the CNDDDB as Threatened (in their own ranking system) within California. Roost sites for this species extend along the western coast in Mendocino in northern California, south to Baja California, Mexico. Roost habitat consists of wind-protected tree groves, typically eucalyptus (gum), Monterey pine, or Monterey Cypress, with nectar and water sources nearby. Although no Monarch butterflies were observed during the December 2006 field visit, the eucalyptus trees in the project area may provide roosting habitat for this species.

*Bats* are widely distributed throughout California in a variety of habitats, from man-made structures such as mines, bridges and buildings to natural habitats such as caves, rock outcrops, and trees. Tree-roosting bats will roost in tree snags or live trees supporting cavities, crevices, or loose bark. Some of the mature trees on site have these components. The two bridges bordering either end of the project site (at Veterans Boulevard and Highway 101) also provide possible day and night roosting habitat. Bat species that have the potential for using the site are the big brown bat, Brazilian free-tailed bat, and Yuma myotis. None of these bat species are considered special-status species. There are no specific laws in California protecting bats as a specific type of wildlife. However, bats (considered non-game mammals), are protected by CDFG Code 4150, which reads: "all mammals occurring naturally in California which are not game mammals, fully protected mammals, or fur-bearing mammals, are non-game mammals. Non-game mammals or parts thereof may not be taken or possessed except as provided in this code or in accordance with regulations adopted by the Commission." Bats are primarily protected through environmental review under CEQA.

*Steelhead* are a federally threatened fish species, and are an anadromous form of the rainbow trout. The species is found only in coastal and San Francisco Bay Area streams where urbanization has not destroyed important spawning, rearing, and/or migration habitat. Steelhead require streams with deep low-velocity pools for resting and rearing, clean gravels for spawning, and high dissolved oxygen concentrations and abundant aquatic insects for feeding. Two sites on Redwood Creek and two sites on its tributary, Arroyo Ojo, have previously been assessed for presence of steelhead, and no steelhead were found. As noted previously, Redwood Creek is a highly urbanized channel with the majority of the channel either in underground culverts or in an engineered channel. These features are considered a movement/migration barrier preventing or limiting access to the stream system. In addition, it is likely that the urbanized upper reaches of the creek do not provide adequate habitat for steelhead spawning and rearing. It is possible that steelhead may, on an infrequent basis, enter Redwood Creek, but are unlikely to move any farther upstream due to the culverts upstream and the potential lack of suitable spawning and rearing habitat in the watershed.

**Regulatory Considerations:** The U.S. Endangered Species Act (ESA) is administered by the USFWS. The California Endangered Species Act (CESA), the Native Plant Protection Act (NPPA), and CEQA afford protection to species of concern included on State-maintained lists. The CDFG has statutory responsibility for the protection of State-listed species, and is a trustee agency under CEQA. Both the Federal and State ESAs provide protection for listed species. In particular, the Federal ESA prohibits "takes" which are defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect a federally listed, endangered species of wildlife, or to attempt to engage in any such conduct." Federal regulations also define take to include the incidental destruction of animals in the course of an otherwise lawful activity, such as habitat loss due to development. Under those rules, the definition of take includes significant habitat modification or degradation that actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter.

The CDFG Species of Special Concern are protected only through environmental review under CEQA. The goal of this designation by CDFG is to bring attention to these species in the hope that their population decline will be halted through mitigation or project redesign to avoid impact.

Nesting birds, including raptors, are protected by the CDFG Code Section 3503, which states “It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.” Passerines (songbirds) and non-passerine landbirds are further protected under the Federal Migratory Bird Treaty Act. As such, the CDFG typically recommends pre-construction surveys for nesting birds that could potentially be directly (actual removal of trees/vegetation) or indirectly (noise disturbance) impacted by construction-related activities. Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment.

The CNPS has developed a rating system for the State’s rare, threatened, and endangered plants. Plants rated by CNPS are subject to protection under CEQA, and may also be protected by state and federal endangered species laws if they are listed by these governments.

Special status natural communities are those that are considered rare in the region, support special status plant or wildlife species, or receive regulatory protection (i.e., Section 404 of the Clean Water Act and/or Section 1600 of the CDFG Code). In addition, the CNDDDB has designated a number of communities as rare; these communities are given the highest inventory priority. The CDFG does not have specific guidelines for the protection of special status natural communities, nor a means with which to regulate. Instead, a determination of the value of the habitat on site and whether or not avoidance or mitigation is required is at the discretion of the Lead Agency under CEQA. Generally, factors such as the size of the habitat, percent cover, surrounding environmental conditions, and opportunities for avoidance or utilization of the community guide local decision-making.

The riparian habitat along Redwood Creek receives regulatory protection under Section 1600 of the CDFG Code, and locally under the Redwood City Stormwater Management & Discharge Control Program. Section 27A.16 of the City Code of Redwood City includes provisions for the protection of watercourses by requiring permits for any of the following activities:

- Discharging into or connecting any pipe or channel to a watercourse;
- Depositing in, planting in, or removing any material from a watercourse including the banks, except as required for necessary maintenance;
- Constructing, altering, enlarging, connecting to, changing, or removing any structure in a watercourse; or placing any loose or unconsolidated material along the side of or within a watercourse or so close to the side as to cause a diversion of the flow, or to cause a probability of such material being carried away by stormwaters passing through.

Development setbacks have been established to safeguard watercourses from activities modifying the natural water regime. Redwood City amended its Zoning Code in 2005 to incorporate the San Mateo Countywide Stormwater Pollution Prevention Program (STOPPP) requirements. The Code now regulates areas within 30 feet of the creek centerline or 25 feet from top of bank, whichever is greater. Prohibited activities within these areas include grading, filling, and any other land disturbance. The Redwood City Engineer is responsible for making the determination as to setback limits and any permitted development within a setback. In addition, the Code specifies that erosion control methods and measures for the avoidance of stormwater pollution shall be used where appropriate for all earth disturbances to control sediment and minimize water quality impacts.

Redwood Creek is a regulated stream channel under Section 1600 of the CDFG Code, the Clean Water Act Section 404 permit process regulated by the U.S. Army Corps of Engineers (USACE), and the Porter-Cologne Water Quality Control Act enforced by the Regional Water Quality Control Board (RWQCB). The USACE also exerts jurisdiction over “waters of the U.S.” which include territorial seas, tidal waters, and non-tidal waters, in addition to wetlands and drainages that support wetland vegetation, exhibit ponding or scouring, show obvious signs of channeling, or have discernible banks and high water marks.

**Tree Protection:** Chapter 35 of the Redwood City Municipal Code provides for the protection of heritage trees on private property, and Chapter 29 of the Municipal Code regulates street trees in the public rights-of-way. A permit is required for any activities that can cause damage to heritage trees and any publicly-owned tree.

**Potential Impacts:** The North Main Street Precise Plan has the potential for the following impacts to biological resources:

- Because of the project's proximity and adjacency to Redwood Creek, developments proposed under the Precise Plan have the potential to adversely affect, either directly or through habitat modifications, the special-status northern coastal salt marsh community and the special-status species that have the potential to occur in this natural community. Such impacts could be considered a "take" of federal or state protected species.
- Because of the project's proximity and adjacency to Redwood Creek, developments proposed under the Precise Plan have the potential to adversely affect the wetlands, riparian habitat, and water quality of the creek.
- Grading and construction activities associated with development under the Precise Plan have the potential to impact nesting birds, bats, and Monarch butterflies, if these species are present within the Precise Plan area during construction.
- The use of non-native and/or invasive plant species in landscaping of Precise Plan projects could have negative impacts on nearby native habitats.
- Exterior lighting associated with Precise Plan projects could have negative effects on wildlife associated with the Redwood Creek habitat.

**Mitigation Measures:** Implementation of the following mitigation measures would ensure that potential impacts from projects developed under the Precise Plan to biological resources would be reduced to less than significant levels:

**Mitigation Measure #3:** Prior to any modifications to the Redwood Creek channel and adjacent northern coastal salt marsh habitat, project developers shall consult with the USFWS and CDFG regarding proposed modifications and construction activities to determine if they could result in "take" of a Federal or State protected species. The USFWS may presume presence or may recommend additional focused surveys to determine if any of these species are present on site. Project design modifications, as well as appropriate mitigation measures determined by the regulatory agencies, may also be required. Typical mitigation could include enhancement of on site habitat conditions or enhancement/preservation of other existing habitat elsewhere in the watershed.

**Mitigation Measure #4:** If impacts to Redwood Creek are anticipated, a wetland delineation shall be performed to determine precise jurisdiction by regulating agencies (e.g., USACE, CDFG, etc.). Impacts could include the temporary or permanent placement of fill into regulated waters or wetlands, diversion or obstruction of flow, pollutant discharge, and the alteration or use of any material from the bed, channel, or bank. The results of the wetland delineation shall be incorporated into regulatory permit applications that may be required if wetland fill is proposed.

**Mitigation Measure #5:** All projects developed under the Precise Plan shall comply with the Redwood City Stormwater Management & Discharge Control Program, including maintenance of setbacks from Redwood Creek, erosion control methods, and measures for the avoidance of stormwater pollution. The Redwood City Engineer is responsible for making the determination as to setback limits and any permitted development within a setback. If more than one acre of ground will be disturbed by grading, the project is required to obtain coverage under the General Permit for Discharges of Stormwater Associated with Construction Activity (Construction General Permit, 99-08-DWQ). The Construction General Permit requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP).

**Mitigation Measure #6:** All tree removal and trimming, as well as ground disturbing activities, shall be scheduled to take place outside of the breeding season (February 15 to August 31). If construction is unavoidable during this

time, a qualified biologist shall conduct a survey for nesting birds no more than three days prior to the removal or trimming of any tree and prior to the start of ground disturbing activities. If active nests are not present, project activities can proceed as scheduled. If active nests of protected species are detected, CDFG shall be contacted on how to proceed. Typically, a buffer will be established around the nest, pursuant to direction from the CDFG.

**Mitigation Measure #7:** A pre-construction survey of trees and structures (including bridges) shall be conducted for roosting bats. The survey shall be conducted by a qualified bat biologist (i.e., a biologist holding a CDFG collecting permit and a Memorandum of Understanding with CDFG allowing the biologist to handle and collect the bats). The survey should be conducted prior to demolition or tree removal. If no bats are detected, then no further surveys are required. If bats are found in a tree or structure on site, bats should be passively excluded/evicted from the roost site for two consecutive days. This is generally accomplished by opening up the roost area to allow airflow through the cavity/crevice. Tree removal should be conducted no less than the following day.

**Mitigation Measure #8:** A focused plant survey shall be conducted in May/June/July to determine if Congdon's tarplant, coast marsh milk-vetch, and/or saline clover are present on site. If these special-status plant species are detected, CDFG shall be contacted to determine appropriate mitigation measures.

**Mitigation Measure #9:** Native and non-invasive plant species, including plant species used for long-term erosion control, shall be used in landscaping within the Precise Plan area.

**Mitigation Measure #10:** If construction were to take place during the fall and winter migration period of the Monarch butterfly, the site shall have a pre-construction survey for Monarch butterflies that could utilize the eucalyptus trees on site. If Monarch butterflies are detected, the CDFG shall be contacted to determine appropriate mitigation measures.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
<b>5. CULTURAL RESOURCES.</b> Would the project:				
(a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**ANALYSIS.** Native American cultural resources sites in San Mateo County have been found primarily along the Bay margin and its associated wetlands, near sources of fresh water including perennial and intermittent streams and springs, and on alluvial fans. The North Main Street Precise Plan area is located on the margin of the Bay, near former wetlands and adjacent to Redwood Creek, and is located on alluvial fans dating to the Holocene period. All of the Precise Plan parcels are currently developed, and most developments were constructed in the 1970s. No cultural resources were encountered during the construction associated with these developments. There are no designated historic resources within the Precise Plan area. Given the highly disturbed nature of the Precise Plan area, the potential for encountering unrecorded Native American cultural resources is considered to be low.

Nonetheless, there exists the possibility that unrecorded Native American cultural resources exist within the Precise Plan area and could be encountered during construction. Implementation of the following mitigation measure would result in a finding of less than significant impact to cultural resources.

**Mitigation Measure #11:** The City requires that if cultural resources are encountered during excavation or site preparation, such work shall be halted immediately in the area of discovery and the project sponsor shall immediately notify the Community Development Director of the discovery. The project sponsor shall be required to retain the services of a qualified archaeologist for the purpose of evaluating, recording, protecting, or curating the discovery as appropriate. The archaeologist shall be required to submit a Cultural Resources Management Plan, per City requirements, to the Community Development Director for review and approval that outlines the findings and mitigation methods of curation and/or protection of the resources. Disposition of Native American remains shall comply with CEQA Guidelines Section 15064.5(e).

	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
<b>6. GEOLOGY AND SOILS.</b> Would the project:				
(a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
(i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
(c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**ANALYSIS.** The Precise Plan would not create new geologic hazards that could damage project facilities. Therefore, this section focuses on the effect of geologic and soil conditions on project facilities.

**Context:** The Precise Plan area is bordered on the east by Redwood Creek, which is tidally-influenced in this reach of the creek. Prior to development in the Precise Plan area, the area adjacent to the creek was occupied intermittently by wetlands associated with Redwood Creek (formerly Redwood Slough) until the 1950s-1960s. In the mid-1950s, the levee along Redwood Creek was constructed, and during the 1960s, fill soil was placed in the project area to bring the elevation above the slough/creek elevation. Additional fill materials were placed in the project area as individual properties were developed. The fill material generally consists of stiff to very stiff clay with gravel. It is anticipated that most of the Precise Plan area is underlain by Bay Mud beneath the fill layer. Bay Mud is generally a thick strata of fine-grained, highly plastic and compressible silty clay of lacustrine (marine) origin.

**Seismicity:** The Precise Plan area is located within the seismically active San Francisco Bay region, but no active or probable active fault traverses the Precise Plan area. The major known active faults in the project vicinity include the Monte Vista (approximately 4.2 miles southeast of the Plan area), San Andreas (approximately 4.5 miles southwest of the Plan area), San Gregorio (approximately 13 miles west of the Plan area), and Hayward (approximately 14 miles northeast of the Plan area). The project area is not within a currently designated Alquist-Priolo Earthquake Fault Zone. Therefore, the potential for surface rupture and ground displacements due to surface faulting is considered to be low. In addition, there are no known unique geologic or physical features present in the project vicinity. Therefore, impacts to Precise Plan developments resulting from seismic ground shaking and other activities would be less than significant.

**Liquefaction:** Liquefaction is a process whereby strong ground shaking causes loose, saturated, unconsolidated sediments to lose strength and behave as a fluid. Soils most susceptible to liquefaction are clean, loose, saturated, uniformly-graded fine-grained sands. The Precise Plan area is mapped by the California Geological Survey (CGS) as being within a liquefaction hazard zone. Therefore, the Precise Plan area should be considered to have variable to moderate liquefaction potential.

**Slope-Related Issues:** The project area is relatively flat; therefore, landslides are not anticipated. The lack of slope in the project area would result in negligible soil erosion or loss. However, increases in erosion of exposed soils by wind or water could occur during excavation associated with construction activities. Contractors will be required to implement San Mateo County Stormwater Pollution Prevention Program (STOPPP) Best Management Practices to address erosion and construction run-off concerns.

All of the Precise Plan parcels have rear property boundaries that abut Redwood Creek. The City's Zoning Ordinance (Section 32.12(F) – Creek protection and setbacks) provides for protection of stream banks, including maintenance of the stability of stream bank slopes. Compliance with the City's Zoning Ordinance would result in less than significant impacts to slope stability on Redwood Creek.

**Expansive Soils:** Shrink-swell, or expansive soil behavior, is a condition in which soil reacts to changes in moisture content by expanding or contracting. Soils in the project area may exhibit shrink-swell potential. As noted below, detailed geotechnical analyses will be prepared for all proposed developments within the Precise Plan area, and the recommendations of these analyses, including those related to expansive soils, will be incorporated into project design.

**Septic Tanks:** The project area is served by sanitary sewer operated and maintained by Redwood City. No septic tanks or other alternative wastewater disposal systems are proposed.

To reduce potential impacts related to geology and soils to less than significant levels, the following mitigation measure shall be adopted and implemented as part of the Precise Plan:

**Mitigation Measure #12:** Site-specific geotechnical studies shall be conducted for all new developments within the Precise Plan area to provide design-level geotechnical recommendations for site grading, building foundation types, and potential geologic hazards. These design-level recommendations shall be incorporated into projects and approved by the City Engineer.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
<b>7. HAZARDS AND HAZARDOUS MATERIALS.</b>				
Would the project:				
(a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
(c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**ANALYSIS.**

**Hazardous Materials Storage and Use:** During construction activities associated with Precise Plan developments, hazardous materials such as vehicle fuels and lubricants may be used. While these are commonly used materials, if handled improperly (fuels, for example, are flammable), they could endanger workers and the public. Compliance with Federal, State, and San Mateo County hazardous materials laws and regulations would minimize the risk to the public presented by these potential hazards. Implementation of these standard measures as part of the project would reduce potential impacts to a less than significant level.

The Precise Plan would not permit uses and/or projects that emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste. There are no existing or proposed schools within one-quarter mile of the Precise Plan area.

Due to the age of some of the existing buildings within the Precise Plan area, it is possible that asbestos-containing materials (ACMs) may be present. Under the National Emissions Standards for Hazardous Air Pollutants (NESHAP) guidelines, asbestos surveys must be undertaken if building demolition is proposed. In addition, NESHAP guidelines require that all potentially friable ACM be removed prior to building demolition or renovation that may disturb the ACM. Compliance with these guidelines would reduce potential ACM impacts to a less than significant level.

**Hazardous Materials Sites List:** None of the parcels within the Precise Plan area are listed on the Hazardous Waste and Substances Site List maintained by the California State Department of Toxic Substances Control (DTSC), pursuant to Government Code Section 65962.5. According to a Phase I Environmental Site Assessment prepared for 333 Main Street (November 2005), there is one facility at 820 Veterans Boulevard, which is approximately 1/8 mile cross- to up-gradient from the site, that was listed on the San Mateo County Environmental Health Department’s Leaking Underground Storage Tank (LUST) database as having had a release of vehicle fuel to groundwater in 1987; monitoring is reportedly ongoing. There were no other reported nearby hazardous materials spills or releases with potential to significantly impact the Precise Plan area.

**Airport Safety:** The San Carlos Airport is a general aviation facility located approximately two miles northwest of the project site. The City/County Council of Governments (C/CAG) of San Mateo County, in its designated role as the Airport Land Use Commission (C/CAG Board) for San Mateo County, has adopted land use control provisions for airport vicinities identified in Federal Aviation Regulations (FAR) Part 77, Objects Affecting Navigable Airspace for the San Carlos Airport.

The C/CAG Board has also adopted an Airport Influence Area (AIA) boundary for San Carlos Airport. The boundary consists of two areas, Area A and Area B. Area A is a geographic area related to aircraft overflights from the ground up to 2,000 feet above mean sea level. The Area A boundary, which extends from the Burlingame/San Mateo border to the San Mateo/Santa Clara County line, defines a boundary within which disclosure of the proximity of an airport is required, per State law, as part of all real estate sales or leases within the boundary. The North Main Street Precise Plan area is within Area A of the AIA boundary for San Carlos Airport.

Area B, known as the C/CAG/ALUC Referral Boundary, is a geographic area within which affected local agencies must refer their proposed land use policy actions (e.g., general plan amendments, rezonings, precise plans) to the C/CAG Board and Airport Land Use Committee (ALUC) for a determination of the consistency of the proposed land use policy action(s) with the relevant provisions contained in the most recent version of the San Mateo County Comprehensive Airport Land Use Plan (CLUP), as amended, for the San Carlos Airport. The North Main Street Precise Plan area is within Area B of the AIA Boundary for San Carlos Airport. Therefore, the Draft Precise Plan document will be referred to the C/CAG Board and the ALUC for review and evaluation prior to action on the Precise Plan by the City Council of Redwood City.

**Emergency Response and Evacuation Plans:** The Precise Plan will not interfere with the City’s adopted emergency response and evacuation plans.

**Wildland Fires:** The Precise Plan area is not within an area subject to wildland fires.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
<b>8. HYDROLOGY AND WATER QUALITY.</b>				
Would the project:				
(a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Substantially deplete groundwater supplies or interfere substantially with	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				
(c) Substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**ANALYSIS.**

**Water Quality and Site Drainage:** State and federal government agencies are responsible for standards for stormwater discharge under the authority of the Clean Water Act (33 U.S.C. § 1251 et seq.). As part of the requirements, all storm drainage that discharges into public waters would be required to meet water quality standards outlined in the Environmental Protection Agency's (EPA) National Pollution Discharge Elimination System (NPDES) Permit requirements. In the Bay Area, the NPDES program is administered by the San Francisco Bay Regional Water Quality Control Board (RWQCB).

For stormwater discharges associated with construction activities, federal regulations allow two permitting options, Individual Permits and General Permits. The RWQCB utilizes a single state General Permit for construction-related stormwater discharges. Under the General Permit, a Stormwater Pollution Prevention Plan (SWPPP) must be prepared and implemented for projects creating 10,000 square feet or more of impervious surface. The SWPPP must be prepared before construction begins, usually during the planning and design phases of a project, and must include BMPs to be included into project landscaping and engineering specifications. The SWPPP must also describe measures to prevent or control pollutants in runoff after construction is complete, and must include an Operations and Maintenance Plan providing for the ongoing inspection and maintenance of these measures.

The San Mateo Countywide Stormwater Pollution Prevention Program (STOPPP) is part of the NPDES permit issued to San Mateo and each incorporated town and city within the county, including Redwood City. The purpose of the STOPPP is to reduce pollutant discharge in stormwater runoff to minimize the pollution of surface water resources including local streams, San Francisco Bay, and the Pacific Ocean. STOPPP offers BMPs for a range of sectors including residential, industrial, construction, and automotive. These practices provide guidance for reducing the amount of stormwater pollution that may be generated.

Redwood City has adopted the STOPPP guidelines. The Redwood City Stormwater Management and Discharge Control Program (SMDCP, contained within Article 27A of the Redwood City Municipal Code) outlines NPDES-exempted activities, broad watercourse protection objectives, illicit discharge prohibitions, and Best Management Practices (BMPs) for new and redevelopment projects. It also refers to the NPDES regulations for stormwater protection and treatment. In addition to programs designed to protect water quality (such as street cleaning and litter control), Redwood City has developed an NPDES Permit Requirements Checklist for implementation of the STOPPP in Redwood City. The checklist sets forth specific provisions and design requirements for all construction activities, since new construction and redevelopment projects can constitute a significant source of pollutants in municipal stormwater discharges. Also, because the time of construction typically represents the only opportunity to incorporate permanent pollution control measures into a project, the checklist includes provisions covering site design and pollutant source controls. The RWQCB issued a Permit Amendment revision Provisions C.3 of the STOPPP in February 2003. The new C.3 amendment requires on-site treatment and storage of stormwater runoff for development projects that fall under certain use and size requirements.

Stormwater treatment is also addressed in various sections of the City's Zoning Ordinance, including Section 32.12, which sets forth development standards for impervious/pervious coverage, stormwater infiltration, and on-site treatment of runoff. In addition, there are creek protection and setback requirements which apply specifically to "protected watercourses" of which Redwood Creek is one. Particular emphasis is placed by the City in protecting "sensitive areas" around waterways, which are defined as "areas located less than two hundred (200) feet away from a water resource including, but not limited to, a wetland, pond, river, the San Francisco Bay or other bodies of water" (Zoning Ordinance Section 2.88). Thus, all of the Precise Plan parcels are designated with sensitive areas within the 200-foot boundary adjacent to Redwood Creek.

Demolition and redevelopment/construction activities within the Precise Plan area will be required by the City to comply with all of the above-discussed regulations, ordinances, and standards. Ongoing operation of projects within the Precise Plan area would also be required to comply with regulations and standards. Compliance with these regulations would reduce water quality and drainage impacts to less than significant levels.

Redwood Creek (including its tributary sloughs) is not listed among the impaired water bodies on the RWQCB's 2002 California 303(d) List of water quality-impaired segments. However, RWQCB staff has indicated that Redwood Creek was not included on the list because it was not studied. In San Mateo County, only San Francisquito and San Mateo Creeks were subjected to sampling and assessment for impairing substances. Nearly all of the studied creeks draining urbanized areas of the San Francisco Bay system are impaired for the pesticide

diazinon. Thus, it is likely that Redwood Creek is also impaired for diazinon, as watershed land uses are similar to those prevailing in other listed watersheds. As of 2000, the EPA reached an agreement with the manufacturer of diazinon to phase out its production by 2004.

Storm drainage facilities within the Precise Plan area are maintained by the City of Redwood City. A City stormwater pump station (known as the Price Pump Station) is located on a parcel within the Precise Plan area, between the buildings at 305 and 333 Main Street, adjacent to Redwood Creek. This pump station collects the stormwater from an area approximately 77 acres in size generally westerly of the Precise Plan area. Similar to other stormwater pump stations within the City, the Price Pump Station does not treat stormwater prior to discharging to Redwood Creek. The Precise Plan includes provision for retaining this infrastructure facility. Stormwater collection and conveyance facilities within the Price Pump Station drainage area are considered adequate to accommodate the development envisioned under the Precise Plan.

**Groundwater:** Groundwater is not used as a drinking water supply in Redwood City, and the Precise Plan does not include provisions for developing groundwater wells within the Precise Plan area. Groundwater is considered to be present at shallow depths (five to ten feet) in the Precise Plan project area. Construction activities may impact shallow groundwater at these sites by affecting flow or by introduction of possible contaminants. Excess water in excavations would be controlled using standard dewatering measures. Water quality would be screened using laboratory analyses as needed, and extracted groundwater would be disposed of appropriately.

**Flooding and Other Water Hazards:** As indicated previously, the banks along Redwood Creek were improved in the 1950s and fill soil was placed in the project area in the 1960s to bring the elevation above the slough/creek elevation. According to the Federal Emergency Management Agency's Flood Insurance Rate Map for Redwood City, Redwood Creek and the creekside land areas below the levees (i.e., the channelized portion of the creek) are located within the 100-year flood area with a base flood elevation of seven feet. The upland areas adjacent to the creek are within Flood Zone C, identified as areas of minimal flooding. However, it should be noted that, according to a geotechnical investigation prepared for the parcel at 333 North Main Street, Redwood Creek overflowed its banks during a 100-year flood event in 2004, resulting in approximately six inches of water in the lower site level parking garage on that parcel.

Redwood Creek is tidally influenced in its reach from the Precise Plan area downstream to San Francisco Bay. It is approximately 100 feet in width at this point and, based on field observations, is approximately 10 to 20 feet deep. The water level in the creek can fluctuate due to tidewater levels by four to six feet.

Although the Precise Plan proposes new housing, the housing would not be developed within the 100-year flood zone and would not change the 100-year flood hazard area. The project proposes no structures to be placed within a 100-year flood hazard area such that they would impede or redirect flood flows. The project contains no elements that would expose people or structures to a significant risk of loss, injury or death involving flooding.

The site is located several miles inland from the San Francisco Bay shoreline, and is not located within a San Mateo County tsunami and seiche inundation area. Therefore, the potential for inundation due to these water hazard events is considered low. In addition, the site is not located in a dam failure inundation zone according to the San Mateo County Natural Hazards Map.

Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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**9. LAND USE AND PLANNING.** Would the project:

(a) Physically divide an established community?

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
(b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Conflict with any applicable Habitat Conservation Plan or Natural Community Conservation Plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**ANALYSIS:** As indicated in the Project Description, a major objective of the North Main Street Precise Plan is to create a strong physical link between two important evolving districts in Redwood City: the Downtown and the Bayfront. To achieve this objective, the project would introduce a new land use (residential) into an area where it has not previously been permitted. The proposed land use change represents a benefit of the project that would serve to connect these two areas rather than physically divide established communities. In addition, the proposed Precise Plan would serve to implement the City's General Plan and other planning policies by creating opportunity for additional housing, enhancing the public access to and water quality of Redwood Creek, and improving the visual quality of the area. The project would also not conflict with any Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional or state habitat conservation plan. Thus, the project would not result in significant land use and planning impacts.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
<b>10. MINERAL RESOURCES.</b> Would the project:				
(a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**ANALYSIS.** No mineral resources or mineral resource recovery sites are located in the project area.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
<b>11. NOISE.</b> Would the project result in:				
(a) Exposure of persons to or generation of noise levels in excess of standards	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
established in the local general plan or noise ordinance, or applicable standards of other agencies?				
(b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**ANALYSIS.** The analysis and conclusions described in this section are based on an environmental noise study prepared for the Precise Plan by Illingworth & Rodkin (see Appendix C). The Appendix contains definitions of technical noise terms used in this section.

Noise in Redwood City is regulated by the City's Noise Ordinance (Chapter 24 of the Municipal Code), which sets allowable noise limits for different types of receiving land uses. The noise levels allowed by the Noise Ordinance depend primarily on the background noise level in the area. For residential developments, Section 24.21 prohibits noise increases of 6 decibels (dB) above local ambient measured noise at any point within a residential district due to an assemblage of three or more people during the hours of 8:00 pm and 8:00 am. Section 24.30 of the Noise Ordinance establishes that noise levels generated by construction are prohibited between the hours of 8:00 pm to 7:00 am weekdays, or at any time on Saturdays, Sundays or holidays. In addition, Section 24.31 of the Ordinance prohibits noise levels from exceeding 110 dBA for any item of machinery, equipment, or device used during construction in a residential district.

In addition, the Noise Element of the City's General Plan sets forth goals and policies to promote compatible development throughout the city. The following general land use recommendations are listed in the Noise Element's Land Use Compatibility Table:

- Residential land uses are considered satisfactory in noise environments of less than 55 dBA CNEL.
- Noise environments between 55 dBA and 60 dBA CNEL are considered conditionally acceptable for residential development. Under these conditions, new construction or development should be undertaken only after a detailed analysis of noise reduction requirements is made and needed noise insulation

*features are included in the project's design.*

- *Commercial land uses are considered satisfactory in noise environments of less than 70 dBA CNEL.*
- *Noise environments between 70 dBA and 80 dBA CNEL are considered "conditionally acceptable" for commercial development. Under these conditions, new construction or development should be undertaken only after a detailed analysis of noise reduction requirements is made and needed noise insulation features are included in the project's design.*

The San Carlos Airport Land Use Plan (ALUP), which is a chapter of the San Mateo County ALUP, establishes airport noise and land use compatibility standards for development in the airport vicinity of San Carlos Airport and its takeoff and approach zones. Projected airport takeoff and approach zone CNEL noise contours presented in the plan are used to evaluate land use compatibility for proposed underlying developments; the 55 dBA CNEL noise contour is recognized as the threshold for review by the Airport Land Use Commission (ALUC). Underlying commercial land uses are considered compatible in noise environments less than 70 dBA CNEL, conditionally compatible in noise environments between 70 and 80 dBA CNEL, and incompatible in noise environments greater than 80 dBA CNEL. The plan area is located within San Carlos Airport Influence Area B. The noise contour map established in the City's General Plan (Airport Noise Contours) indicates that the entire Precise Plan area is located outside of the future 55 dBA CNEL noise contour for the airport. Therefore, aircraft noise would not affect the compatibility for new residential uses in the plan area.

The existing noise environment in the Precise Plan area primarily results from traffic on the local streets and U.S. Highway 101. For the noise analysis, noise measurements were made during midday at three different locations in the area on January 5, 2007. The first location was on Veterans Boulevard, about 145 feet from the centerline of the road, just east of Main Street. The average noise level was 66 dBA  $L_{eq}$  and noise levels fluctuated between 62 dBA and 77 dBA during the ten-minute measurement. The only notable source other than vehicular traffic was a helicopter that caused maximum noise level of 76 dBA. The second measurement was along Main Street, at a distance of about 65 feet from the roadway centerline near the intersection with Brewster Avenue. The average noise level was 64 dBA  $L_{eq}$ . Traffic noise levels ranged from about 60 dBA to 76 dBA. The third measurement was behind the building at 333 Main Street near Redwood Creek. The only significant noise source at this location was traffic on U.S. Highway 101. The noise level was fairly steady at 63 to 65 dBA. The average noise level during the measurement was 64 dBA  $L_{eq}$ . Activities at the shopping center located across the creek (Mervyn's Plaza) did not make any measurable contribution to the midday noise levels and no potential noise sources were observed (such as loading docks).

**Construction Noise:** Potentially significant noise impacts would result from construction if noise levels were sufficiently high to interfere with speech, sleep, or normal residential activities. Construction-related hourly average noise levels received at commercial/office land uses above 70 dBA  $L_{eq}$  during the daytime would be considered significant. To cause a significant environmental impact, construction activities affecting a receptor must persist for more than one construction season.

Construction activities facilitated by the Precise Plan could include site preparation, building demolition, building modification and rehabilitation, and construction of new buildings. Construction activities generate considerable amounts of noise, especially during the demolition and foundation phases and the construction of project infrastructure when heavy equipment is used. The effects of noise resulting from construction depend on 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 receptors. Although construction noise would be localized to the individual site location, land uses adjacent to a construction site would be intermittently exposed to noise levels exceeding 75 dBA  $L_{eq}$  throughout the construction period.

**Mitigation Measure #13:** Implementation of the following construction-related noise reduction measures would reduce potentially significant noise impacts to a less than significant level:

- Construction Scheduling. Ensure that noise-generating construction activity is limited to between the hours of 7:00 AM to 8:00 PM, Monday through Friday, and noise levels generated by construction are prohibited on Saturdays, Sundays and holidays. (*Redwood City Municipal Code Section 24.30*)

- Construction Equipment Mufflers and Maintenance. Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- Equipment Locations. Locate stationary noise-generating equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction project site.
- Construction Traffic. Route all construction traffic to and from the construction sites via designated truck routes where possible. Prohibit construction-related heavy truck traffic in residential areas where feasible.
- Quiet Equipment Selection. Use quiet construction equipment, particularly air compressors, wherever possible.
- Temporary Barriers. Construct solid plywood fences around construction sites adjacent to operational business, residences or noise-sensitive land uses.
- Temporary Noise Blankets. Temporary noise control blanket barrier could be erected, if necessary, along building facades of construction sites. This mitigation would only be necessary if conflicts occurred which were irresolvable by proper scheduling. Noise control blanket barriers can be rented and quickly erected.
- Noise Disturbance Coordinator. For larger construction projects, the City may choose to require project designation of a "Noise Disturbance Coordinator" who would be responsible for responding to any local complaints about construction noise. The Disturbance Coordinator would determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and institute reasonable measures to correct the problem. Conspicuously post a telephone number for the Disturbance Coordinator at the construction site and include it in the notice sent to neighbors regarding the construction schedule. (The City should be responsible for designating a Noise Disturbance Coordinator and the individual project sponsor should be responsible for posting the phone number and providing construction schedule notices.)

**Operational Noise:** There would be no new sources of noise associated with project. There are no existing noise sensitive receptors in or around the project area, and implementation of the Precise Plan is not expected to cause an increase in traffic noise, so there would not be a permanent increase in ambient noise from traffic.

Residential development is considered normally acceptable in noise environments of 55 dBA CNEL or less, and commercial or retail development is considered normally acceptable in noise environments of 70 dBA CNEL or less. Existing traffic noise levels throughout the Precise Plan area exceed 55 dBA CNEL. Along Main Street, the noise level is about 65 dBA CNEL. At Veterans Boulevard, the noise level is about 69-70 dBA CNEL, 100 feet from the roadway's centerline. The residential development envisioned by the Precise Plan is considered a noise-sensitive land use, and would be exposed to noise levels exceeding the "normally acceptable" level. In addition, proposed multi-family housing in noise environments that exceed 60 dBA CNEL would require acoustical evaluation under the California Building Code. To reduce potential noise impacts to new residential uses to a less than significant level, the following mitigation measure shall be incorporated into all Precise Plan developments:

**Mitigation Measure #14:** Site-specific noise studies shall be conducted for all new residential uses to identify appropriate noise reduction measures to be included in the final design, which may include the following:

- Utilize site planning to minimize noise in shared residential outdoor activity areas by locating the areas behind the buildings, in courtyards, or orienting the terraces to alleyways rather than streets, whenever possible.
- Air conditioning should be provided in all units so that windows can remain closed to maintain interior noise levels below 45 dBA CNEL.
- Residential units proposed within 100 feet of Veterans Boulevard centerline, where noise levels would exceed 70 dB CNEL, should incorporate sound-rated windows and construction methods.
- A detailed analysis of residential interior noise levels shall be completed during design following the requirements of the 2001 California Building Code. The report will confirm that the design includes the noise control treatments necessary to achieve compliance with the noise standards.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
<b>12. POPULATION AND HOUSING.</b> Would the project:				
(a) Induce substantial 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**ANALYSIS.** According to the Association of Bay Area Governments (ABAG) in *Projections 2005*, the City of Redwood City's population in 2005 was 77,300. For 2030, the projected population is 94,300. This projected growth represents an increase of approximately 22 percent in population over that 25-year period. The residential densities proposed under the North Main Street Precise Plan would allow for up to 438 new multi-family dwelling units. Using the City's persons per household of 2.2 for multi-family units, the number of new persons resulting from these dwelling units would be 964. The population growth associated with the proposed project represents approximately 0.6 percent of the total population growth expected in Redwood City, and is anticipated in the ABAG projections. Thus, the Precise Plan would not directly contribute to an exceedence of official regional or local population projections, and would not induce substantial population growth. There are no residential units currently within the Precise Plan area; thus, the project would not displace housing or people.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
<b>13. PUBLIC SERVICES.</b> Would the project:				
(a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
public services:				
(i) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(ii) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(iii) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(iv) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(v) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**ANALYSIS.** Existing fire, police, and other governmental services are sufficient to accommodate the public service needs of the development envisioned under the Precise Plan. The project would not necessitate the expansion of the equipment, facilities, or manpower of responsible fire, police, school, and park services to more than existing resources in order to maintain current service ratios and response times. It is anticipated that the call volumes for emergency services would increase with the introduction of residential units in the Precise Plan area; this increase would represent less than one percent of the current total of Fire Department calls for service.

The Precise Plan area is within the Redwood City School District (which oversees the elementary and middle public school system in Redwood City) and the Sequoia Union High School District (which serves grades 9-12 in Redwood City). The school districts' primary means of funding for the construction and maintenance of school facilities is through imposition of a state-authorized impact fee for new commercial and residential projects. The current established impact fee is \$2.14 per square foot of net new residential development and \$0.34 per square foot of net new commercial development. The fee proceeds are shared by the two districts. School impact fees are collected when building permits are issued. Therefore, under current statutes, payment of the required school impact fees would address the project's potential impact on school services.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
<b>14. RECREATION.</b> Would the project:				
(a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**ANALYSIS.** The Precise Plan area is not within the immediate vicinity of neighborhood and/or regional parks. Thus, it is not anticipated that future residents within the Precise Plan area would increase the use of these facilities to the extent that substantial physical deterioration of the facilities would occur.

The North Main Street Precise Plan includes a recreational facility in the form of a creekside trail along Redwood Creek. It is anticipated that new residents within the Precise Plan area will use this facility, and it will also be a resource to Redwood City residents as a whole. As indicated in other analysis sections in this IS/MND, the proposed creekside trail would be constructed behind the top of bank in areas already disturbed by current development. The trail construction would comply with all applicable City codes and regulations; therefore, it would not be anticipated to result in an adverse physical effect on the environment, but would represent a recreational benefit of the project.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
<b>15. TRANSPORTATION/TRAFFIC.</b> Would the project:				
(a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Exceed, either individually or cumulatively, a level of service standard established by the County congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**ANALYSIS.**

**Project Traffic:** A trip generation analysis was performed by Fehr & Peers Transportation Consultants to determine if the proposed Precise Plan would cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (see Appendix D). The purpose of the trip generation analysis was to determine if the land uses proposed under the Precise Plan would generate substantially more trips than the

current land uses within the Precise Plan area; the current land uses are considered to be representative of what can be built within the area under current General Plan and zoning designations.

Based on the trip generation analysis, the existing land uses within the Precise Plan area generate approximately 3,825 daily trips (431 AM peak hour trips and 526 PM peak hour trips) assuming all buildings are fully occupied. Under the Precise Plan, the proposed land uses would generate approximately 3,226 daily trips (301 AM peak hour trips and 357 PM peak hour trips). Thus, the Precise Plan would result in a net decrease of 599 daily trips (a net decrease of 130 AM peak hour trips and a net decrease of 169 PM peak hour trips) as compared to existing uses. This represents an approximately 15% decrease in trips. The analysis performed was conservative, in that no mixed use reductions were applied to either the existing or proposed uses. Applying a mixed use reduction factor typically reduces a proposed project's trip estimates; thus, the analysis performed presents a conservative trip generation estimate.

Because the proposed Precise Plan would result in a net decrease in trips when compared to existing uses (which represent what could be built under existing General Plan and zoning designations), the Precise Plan is not anticipated to adversely affect the capacity of the existing street system within the vicinity of the project site, nor affect designated roads or highways established by the San Mateo County Congestion Management Agency. It is anticipated that traffic from the Precise Plan area would primarily utilize Main Street and Brewster Avenue to access Veterans Boulevard, which is the nearest arterial providing local and regional access to the surrounding roadway system. These two intersections are signalized and currently operate at Level of Service C in both the AM and PM peak hours. Redwood City has established a Level of Service D as the minimum acceptable operating level for both signalized and unsignalized intersections. Thus, the intersections currently operate at acceptable Levels of Service; because project area trips are anticipated to be decreased with the Precise Plan, the current operations would not be diminished.

**Air Traffic:** The project would not have an effect on air traffic patterns.

**Design Features, Emergency Access, and Parking Capacity:** All future developments under the Precise Plan would be evaluated by the City for ingress/egress design to ensure that no circulation hazards would occur and would not result in inadequate emergency access. Similarly, all future developments would be required to comply with the City's parking standards.

**Alternative Transportation:** The project area is served by the San Mateo County Transit District (SamTrans), with their Route 270 (running on Veterans Boulevard and Main Street); this route serves the Redwood City Caltrain station, Kaiser Hospital, Seaport Village, Harbor Village and Marsh Road (in Menlo Park). Development within the Precise Plan would not affect this service.

There is an existing bicycle lane on Main Street between Veterans Boulevard and the vehicular bridge crossing Redwood Creek from Main Street to Mervyn's Plaza. The Precise Plan anticipates that this bicycle lane will remain. This facility may need to be temporarily closed and rerouted during construction. If this were to occur, the routes would be posted in advance noticing the temporary removal of the bike lane/route and/or closure of the sidewalk, notice the closure with on-street signs, and clearly signing a detour route. In addition, the Precise Plan requires bicycle storage facilities in new residential developments to encourage secure and convenient access to bicycles by residents.

The inclusion of a multi-use creekside trail in the Precise Plan will provide for enhanced bicycle access to Redwood Creek. This trail is eventually anticipated to connect the Precise Plan area with the Bayfront area, with an undercrossing of U.S. Highway 101. Thus, the proposed Precise Plan would not conflict with, but would support, the City's adopted policies, plans and programs supporting alternative transportation modes.

	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporation</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
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**16. UTILITIES AND SERVICE SYSTEMS.**

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
(a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**ANALYSIS.** The project site is located within a developed area, which is furnished with established wastewater, stormwater drainage, water supply, and solid waste systems. Each of these is discussed below.

**Wastewater:** The local wastewater collection system serving Redwood City is owned and operated by the City. The municipal collection system serving the Precise Plan area and vicinity consists primarily of 6-, 8-, and 10-inch vitrified clay pipe (VCP) and polyvinylchloride (PVC) lines. These local collector pipes discharge into major trunk sewers in Industrial Way and Bradford Street. The wastewater is then conveyed through increasingly larger municipal lines that lead to the South Bayside System Authority (SBSA) pump station located on Maple Street. SBSA is a joint powers authority that provides wastewater treatment service for four member agencies: the cities of Redwood City, Belmont, and San Carlos, and the West Bay Sanitary District. The SBSA operates a wastewater treatment plant located on Radio Road at the eastern end of Redwood Shores in Redwood City, and the associated Maple Street wastewater pump station serving Redwood City. Redwood City currently uses all of its available treatment capacity at the plant, but possesses purchase rights to additional capacity. Developers of projects within the Precise Plan will be required to purchase available SBSA wastewater treatment capacity and sewer facilities to the site. As part of the City's development review process, each project will be required to provide an analysis of its sewer facility needs and upgrade or improve the system as necessary. The project will

not result in any exceedence of RWQCB wastewater treatment requirements, and would not affect SBSA's wastewater treatment plant permit conditions or wastewater treatment capacity.

**Water Supply:** Redwood City obtains its potable water supply from the San Francisco regional water system (also known as the Hetch Hetchy system), which is operated by the San Francisco Public Utilities Commission. Redwood City has a contractual supply assurance from the regional system of 12,243 acre-feet per year (af/yr). The City owns and operates its municipal water distribution system, which has 13 metered connections to the Hetch Hetchy pipelines serving the City. The municipal water system serving the Precise Plan area and vicinity consists of primarily 6-, 8-, 10-, and 12-inch pipes of various ages and materials. These local distribution pipes are supported by larger water mains; a 12-inch main runs along Veterans Boulevard.

The proposed project is not anticipated to generate a substantial impact on existing water supplies. The total number of dwelling units that could be accommodated under the Precise Plan (438 units) falls below the 500-unit threshold provided under State law (SB 610 and SB 221) that would mandate a water supply assessment for new development. In addition, the City's 2005 Urban Water Management Plan (UWMP) accounts for growth in multi-family units, particularly those in mixed-use districts and along transit corridors. All projects developed within the Precise Plan will, nonetheless, be required to comply with all applicable state and local codes that mandate the use of water conserving equipment, plumbing fixtures, and drought-tolerant landscaping.

**Storm Drainage:** See discussion under Hydrology and Water Quality for storm drainage analysis.

**Solid Waste:** BFI Peninsula in San Carlos provides solid waste collection, recycling, transportation, and disposal services to Redwood City and other Peninsula cities. The solid waste from Redwood City first goes to the South Bayside Transfer Station in San Carlos, then to Ox Mountain Landfill in Half Moon Bay. The City has a disposal agreement with Ox Mountain in which the landfill guaranteed capacity through December, 2019. Thus, the project will be served by a landfill with sufficient permitted capacity to accommodate the project's construction and operational solid waste disposal needs.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
<b>17. MANDATORY FINDINGS OF SIGNIFICANCE.</b>				
(a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
plant or animal community, reduce the number or restrict the range of an endangered, rare or threatened species, or eliminate important examples of the major periods of California history or prehistory?				
(b) Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Does the project have possible environmental effects which are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**ANALYSIS AND CONCLUSION.** With implementation of the mitigation measures recommended in this document and summarized on the following page, potential environmental impacts associated with the North Main Street Precise Plan will be reduced to a less than significant level.

## RECOMMENDED MITIGATION MEASURES FOR NORTH MAIN STREET PRECISE PLAN

### AESTHETICS

**Mitigation Measure #1:** Project sponsors shall submit an exterior lighting plan that includes only exterior lighting fixtures that do not allow direct light rays to leave the project site and which also do not allow direct light sources (incandescent, fluorescent, or other forms of electric illumination) to be directly visible from off-site locations. The plan shall be subject to review and approval by the Planning Division.

### AIR QUALITY

**Mitigation Measure #2:** Implementation of the following BAAQMD Basic Measures as part of each project will minimize PM<sub>10</sub> emissions and will reduce construction-related air quality impacts to a less than significant level.

- Water all active construction areas at least twice daily.
- Cover all trucks hauling soil, sand and other loose materials or require all trucks to maintain at least two feet of freeboard.
- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.
- Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites.
- Sweep streets daily if visible soil material is carried onto adjacent public streets.

If parcels are assembled to create a building site of greater than four acres, the City would require that the Enhanced Measures be implemented during construction.

### BIOLOGICAL RESOURCES

**Mitigation Measure #3:** Prior to any modifications to the Redwood Creek channel and adjacent northern coastal salt marsh habitat, project developers shall consult with the USFWS and CDFG regarding proposed modifications and construction activities to determine if they could result in “take” of a Federal or State protected species. The USFWS may presume presence or may recommend additional focused surveys to determine if any of these species are present on site. Project design modifications, as well as appropriate mitigation measures determined by the regulatory agencies, may also be required. Typical mitigation could include enhancement of on site habitat conditions or enhancement/preservation of other existing habitat elsewhere in the watershed.

**Mitigation Measure #4:** If impacts to Redwood Creek are anticipated, a wetland delineation shall be performed to determine precise jurisdiction by regulating agencies (e.g., USACE, CDFG, etc.). Impacts could include the temporary or permanent placement of fill into regulated waters or wetlands, diversion or obstruction of flow, pollutant discharge, and the alteration or use of any material from the bed, channel, or bank. The results of the wetland delineation shall be incorporated into regulatory permit applications that may be required if wetland fill is proposed.

**Mitigation Measure #5:** All projects developed under the Precise Plan shall comply with the Redwood City Stormwater Management & Discharge Control Program, including maintenance of setbacks from Redwood Creek, erosion control methods, and measures for the avoidance of stormwater pollution. The Redwood City Engineer is responsible for making the determination as to setback limits and any permitted development within a setback. If more than one acre of ground will be disturbed by grading, the project is required to obtain coverage under the General Permit for Discharges of Stormwater Associated with Construction Activity (Construction General Permit, 99-08-DWQ). The Construction General Permit requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP).

**Mitigation Measure #6:** All tree removal and trimming, as well as ground disturbing activities, shall be schedule to take place outside of the breeding season (February 15 to August 31). If construction is unavoidable during this

time, a qualified biologist shall conduct a survey for nesting birds no more than three days prior to the removal or trimming of any tree and prior to the start of ground disturbing activities. If active nests are not present, project activities can proceed as scheduled. If active nests of protected species are detected, CDFG shall be contacted on how to proceed. Typically, a buffer will be established around the nest, pursuant to direction from the CDFG.

**Mitigation Measure #7:** A pre-construction survey of trees and structures (including bridges) shall be conducted for roosting bats. The survey shall be conducted by a qualified bat biologist (i.e., a biologist holding a CDFG collecting permit and a Memorandum of Understanding with CDFG allowing the biologist to handle and collect the bats). The survey should be conducted prior to demolition or tree removal. If no bats are detected, then no further surveys are required. If bats are found in a tree or structure on site, bats should be passively excluded/evicted from the roost site for two consecutive days. This is generally accomplished by opening up the roost area to allow airflow through the cavity/crevice. Tree removal should be conducted no less than the following day.

**Mitigation Measure #8:** A focused plant survey shall be conducted in May/June/July to determine if Congdon's tarplant, coast marsh milk-vetch, and/or saline clover are present on site. If these special-status plant species are detected, CDFG shall be contacted to determine appropriate mitigation measures.

**Mitigation Measure #9:** Native and non-invasive plant species, including plant species used for long-term erosion control, shall be used in landscaping within the Precise Plan area.

**Mitigation Measure #10:** If construction were to take place during the fall and winter migration period of the Monarch butterfly, the site shall have a pre-construction survey for Monarch butterflies that could utilize the eucalyptus trees on site. If Monarch butterflies are detected, the CDFG shall be contacted to determine appropriate mitigation measures.

## **CULTURAL RESOURCES**

**Mitigation Measure #11:** The City requires that if cultural resources are encountered during excavation or site preparation, such work shall be halted immediately in the area of discovery and the project sponsor shall immediately notify the Community Development Director of the discovery. The project sponsor shall be required to retain the services of a qualified archaeologist for the purpose of evaluating, recording, protecting, or curating the discovery as appropriate. The archaeologist shall be required to submit a Cultural Resources Management Plan, per City requirements, to the Community Development Director for review and approval that outlines the findings and mitigation methods of curation and/or protection of the resources. Disposition of Native American remains shall comply with CEQA Guidelines Section 15064.5(e).

## **GEOLOGY AND SOILS**

**Mitigation Measure #12:** Site-specific geotechnical studies shall be conducted for all new developments within the Precise Plan area to provide design-level geotechnical recommendations for site grading, building foundation types, and potential geologic hazards. These design-level recommendations shall be incorporated into projects and approved by the City Engineer.

## **NOISE**

**Mitigation Measure #13:** Construction contractors shall implement the following construction-related noise reduction measures:

- Construction Scheduling. Ensure that noise-generating construction activity is limited to between the hours of 7:00 AM to 8:00 PM, Monday through Friday, and noise levels generated by construction are prohibited on Saturdays, Sundays and holidays. (*Redwood City Municipal Code Section 24.30*)
- Construction Equipment Mufflers and Maintenance. Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- Equipment Locations. Locate stationary noise-generating equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction project site.
- Quiet Equipment Selection. Use quiet construction equipment, particularly air compressors, wherever possible.
- Temporary Barriers. Construct solid plywood fences around construction sites adjacent to operational business, residences or noise-sensitive land uses.
- Temporary Noise Blankets. Temporary noise control blanket barrier could be erected, if necessary, along building facades of construction sites. This mitigation would only be necessary if conflicts occurred which were irresolvable by proper scheduling. Noise control blanket barriers can be rented and quickly erected.
- Noise Disturbance Coordinator. For larger construction projects, the City may choose to require project designation of a "Noise Disturbance Coordinator" who would be responsible for responding to any local complaints about construction noise. The Disturbance Coordinator would determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and institute reasonable measures to correct the problem. Conspicuously post a telephone number for the Disturbance Coordinator at the construction site and include it in the notice sent to neighbors regarding the construction schedule. (The City should be responsible for designating a Noise Disturbance Coordinator and the individual project sponsor should be responsible for posting the phone number and providing construction schedule notices.)

**Mitigation Measure #14:** Site-specific noise studies shall be conducted for all new residential uses to identify appropriate noise reduction measures to be included in the final design, which may include the following:

- Utilize site planning to minimize noise in shared residential outdoor activity areas by locating the areas behind the buildings, in courtyards, or orienting the terraces to alleyways rather than streets, whenever possible.
- Air conditioning should be provided in all units so that windows can remain closed to maintain interior noise levels below 45 dBA CNEL.
- Residential units proposed within 100 feet of Veterans Boulevard centerline, where noise levels would exceed 70 dB CNEL, should incorporate sound-rated windows and construction methods.
- A detailed analysis of residential interior noise levels shall be completed during design following the requirements of the 2001 California Building Code. The report will confirm that the design includes the noise control treatments necessary to achieve compliance with the noise standards.