

Table 2.1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
<i>LAND USE</i>				
<p>Impact 4-1: Project Relationships to Existing Overhead Electrical Transmission Lines. Policy L-2 of the <u>Redwood City Strategic General Plan Land Use Element</u> states: <i>"Residential neighborhoods should be protected from the encroachment of incompatible activities or land uses which may have a negative impact on the residential living environment."</i> The project residential components closest to the northern edge of the Peninsula Marina property portion of the project site would be in close proximity (as close as 150 feet) to the existing PG&E parallel 230- and 115-kV electrical transmission tower lines. These introduced residential/transmission line relationships could result in adverse impacts related to the perceived visual, public health and</p>	S	<p>Mitigation 4-1. The following measures shall be implemented to address the potential for nuisance impacts related to project relationships to the existing PG&E electrical transmission lines:</p> <p>(1) Provide notification in writing to all prospective residents of all residential units within 200 feet of the edge of the 230-kV/115-kV transmission lines easement that there are existing transmission lines of these specific power ratings, with associated visual and noise characteristics, within that distance; this notification shall be achieved by including such disclosure in the sale and rental agreement materials to be signed by project residents; and</p>	Applicant	LS

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation Mitigation Measures

Potential
 Significance
 With
 Mitigation
 Mitigation
 Responsibility

safety, and noise effects. The significance of these impacts is described in chapters 5 (Visual Factors), 12 (Public Health and Safety), and 13 (Noise) of this EIR--see subsections 5.3.3 (*Impact 5-7: Internal Visual Relationship of Project Development to Electrical Transmission Lines*), 12.3.2 (under "Potential Electromagnetic Field Health Hazards"), and 13.3.2 (*Impact 13-1: Project Compatibility with the Existing Noise Environment*). These nuisance and health factors may have a negative impact on the quality and safety of the residential living environment along the north edge of the Peninsula Marina property, and could lead to numerous future nuisance complaints; they are therefore considered to represent a **potentially significant land use compatibility impact**.

(2) Implement *Mitigations 5-7* (Internal Visual Relationship of Project Development to Electrical Transmission Lines) and *13-1* (Project Compatibility with the Existing Noise Environment) identified in chapters 5 (Visual Factors) and 13 (Noise) of this EIR in order to reduce the potential visual and noise impacts of the existing electrical transmission lines to less-than-significant levels.

Implementation of these measures would reduce this potential land use compatibility impact to a **less-than-significant level**.

Impact 4-2: Project Compatibility with Adjacent Residential Land Uses. Project-proposed residential densities averaging approximately 62.52 units per acre and associated project building heights--up to eight 23-story towers on the Peninsula Marina property (maximum building height of 260 feet) and up to five 21-story towers on the Pete's Harbor property (maximum building height of 240 feet)--would be substantially higher than those in the adjacent "Villas at Bair Island" and Marina Pointe

S

Mitigation 4-2. The applicant shall implement *Mitigation 5-2* (Visual Impacts on Views and Vistas and on the Character of the Surrounding Area), *5-3* (General Visual Compatibility Impacts), *5-4* (Potential Light and Glare Impacts), and *5-5* (Shadow Impacts), which would reduce this land use compatibility impact to a **less-than-significant level**, or, if one or more of these mitigations is not adopted, the City shall adopt a statement of overriding considerations acknowledging that the project would have a

Applicant

LS or
 SU

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation Mitigation Measures

Mitigation
 Responsibility Potential
 Significance
 With
 Mitigation

multifamily residential developments along Bair Island Road (maximum average densities of approximately 30 units/acre and maximum building heights of four stories and two stories, respectively), representing a **potentially significant land use compatibility impact** related to building mass, scale, and height relationships, general visual compatibility, light and glare, and shadow.

significant unavoidable land use compatibility impact.

Impact 4-3: Project Inconsistency with "Smart Growth" Policies and Criteria. "Smart growth" concepts, policies, and criteria set forth in adopted local (Redwood City) and regional (ABAG) land use policy documents are particularly applicable to intensive, large-scale residential and commercial development like the proposed project. The proposed project embodies a number of fundamental "smart growth" characteristics; it is a compact, high-density residential project that is pedestrian-oriented and located within an existing urban area (rather than geographically isolated). However, unless the project can demonstrate to City satisfaction: (1) adequate water and parks facilities, (2) a convenient and effective transit link to a local and regional express transit corridor or hub (e.g., the El Camino Real transit corridor and Redwood City/CalTrain intermodal station) and to

S

Mitigation 4-3. Incorporate the following "smart growth" characteristics into the proposed project, to City satisfaction:

Applicant

LS

- implementation of *Mitigations 10-1 and 10-8* from chapter 10 (Infrastructure and Public Services) of this EIR pertaining to water service and park provisions;
- a convenient and effect *transit link* between the project and local and regional express transit corridors and/or hubs, including the El Camino Real transit corridor and Redwood City CalTrain intermodal station, and between the project, downtown Redwood City, and other local employment, financial, and retail concentrations;
- *on-site retail commercial provisions* sufficient

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

the Redwood City downtown, (3) retail commercial provisions sufficient to serve the convenience needs of project residents and businesses, and (4) a specific and substantial below market rate housing component, the project would be inconsistent with various key City and ABAG "smart growth" policies. This possible project inconsistency with applicable local and regional land use policies represents a **potentially significant environmental impact**.

to serve the convenience retail needs of project residences and businesses;

- a substantial *affordable housing component*; and
- implementation of all mitigations identified in chapters 8 (Biological Resources) and 12 (Public Health and Safety) of this EIR as necessary to reduce project-related ecological impacts and environmental hazards to less-than-significant levels.

Implementation of this measure would reduce this potential project policy inconsistency to a **less-than-significant level**.

VISUAL FACTORS

Impact 5-1: Project Inconsistency with City Height-Related Policies and Regulations. The City's General Plan states that "The visual qualities of the community should be preserved and improved" (Policy C-7). For *General Commercial* zoned properties such as the Peninsula Marina property, the City's Zoning Ordinance stipulates, "No structure shall exceed seventy-five (75) feet in height." For *Residential Combining District* zoned properties such as the

S

Mitigation 5-1. Implement one of the following two alternative mitigations:

Applicant, City

LS or
 SU

- *Mitigation Alternative 5-1-1:* Reduce the maximum project building heights on both properties to 75 feet, which would reduce this policy and regulatory consistency impact to a **less-than-significant level**.

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
City of Redwood City
March 5, 2003
Impacts

Potential
Significance
Without
Mitigation Mitigation Measures

Potential
Significance
With
Mitigation
Mitigation
Responsibility

Pete's Harbor property, the Zoning Ordinance stipulates that building heights shall be determined through the City's design review (Architectural Permit) process. With respect to both the Peninsula Marina and Pete's Harbor properties, Article 25 of the City's Municipal Code states that the approval, conditional approval, or denial of any application for an Architectural Permit (the project will require design review and Architectural Permit approval) shall be based on, among other listed factors, *"The extent to which the structure conforms to the general character of other structures in the vicinity insofar as the character can be ascertained and is found to be architecturally desirable."*

The proposed project, as presented by the applicant for review in this EIR, would include 13 residential towers ranging from 240 to 260 feet in height, 12 mid-rise residential and two office buildings of 74 to 84 feet in height, and two-story townhouses and retail buildings approximately 24 feet in height. The proposed residential towers on the Peninsula Marina property, which would extend up to approximately 260 feet, would exceed the current 75-foot height limit by up to approximately 185 feet. Assuming the same 75-foot limitation is applied to the Pete's Harbor property in the interest of *"conforming to the*

- *Mitigation Alternative 5-1-2:* Adopt a Precise Plan for the project site that permits a building height in excess of 75 feet, and design the project accordingly. In conjunction with the new height allowance, formulate a set of *Precise Plan Standards and Guidelines* for the project site for adoption by the City's Architectural Review Committee, Planning Commission, and City Council that supersede current applicable City policies, standards, and guidelines pertaining to building form, height, shadow, conformity, setbacks, facades, etc., and permit current height limitations to be exceeded on the project site, provided that other specific provisions included in these *Design Standards and Guidelines* are incorporated into the project design to City (Architectural Review Committee) satisfaction. These measures would eliminate the project's policy and regulatory inconsistencies with respect to building height, but would not reduce the associated building scale inconsistencies to a less-than-significant level, and thus would result in a ***significant unavoidable visual impact.***

S = Significant
LS = Less than significant
SU = Significant unavoidable impact
NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation Mitigation Measures

Potential
 Significance
 With
 Mitigation
 Mitigation
 Responsibility

general character" of project structures on the Peninsula Marina property, the proposed residential towers on the Pete's Harbor property, which would extend to approximately 240 feet, would exceed this height by up to 165 feet. Unless the City approves the applicant-requested Precise Plan for the project site which permits these heights, the heights would be inconsistent with City policies and regulations. These heights would also result in a building scale that is not consistent with the existing surrounding community. These building heights would therefore represent a **significant adverse visual impact**.

Impact 5-2: Visual Impacts on Views and Vistas and on the Character of the Surrounding Area. Current development and vegetation form a base visual plane that is approximately 50 feet in height and merges with the horizon as seen from surrounding areas. Proposed project buildings would extend significantly above this plane, impacting the visual quality characteristic of the Bayfront Area. The proposed project, as presented by the applicant for review in this EIR, would include 13 residential towers ranging from 240 to 260 feet in height, 12 mid-rise residential and two office buildings of 74 to 84 feet in height, and two-story townhouses

S

Mitigation 5-2. Implement the one following two alternative mitigations:

Applicant, City

LS or
 SU

- *Mitigation Alternative 5-2-1:* Reduce project building heights to approximately 50 feet to merge with the visual base plane of the project site. At this height, buildings would not obstruct existing views of the sky and surrounding hills to a greater degree than existing buildings and vegetation. The buildings may be screened by perimeter trees, blending the project more sensitively into the natural Bayfront surroundings. (A similar condition currently exists along the

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation Mitigation Measures

Potential
 Significance
 With
 Mitigation
 Mitigation
 Responsibility

and retail buildings approximately 24 feet in height. The proposed residential towers would extend approximately 190 to 210 feet above the 50-foot base plane. The mid-rise elements of the project extend approximately 24 to 34 feet above the plane. A portion of sky and distant views would be blocked, shifting the focus of views from natural features to the project development in the foreground.

As a result, the proposed project would have a substantial adverse effect on surrounding scenic vistas and would significantly alter public views and view corridors. The project would substantially alter the existing visual character of the surrounding area, which is currently characterized by open and expansive natural views. The project would diminish the quality of these views from numerous vantage points, including adjacent residential, commercial, and recreational areas, Highway 101, the Whipple Avenue and Maple Street overpasses, and the western hills. As a result, the project would have a **significant visual impact** on the character of the surrounding area.

Redwood Creek frontage of Seaport Center.) Also, set back project buildings from adjacent waterways and public trails to retain a more expansive open space character. The angle of enclosure created by new buildings generally should not exceed the angle created by existing trees and buildings which line Redwood Creek and Steinberger Slough. Implementation of these measures would reduce this impact (Visual Impacts on Views and Vistas and on the Character of the Surrounding Area) to a **less-than-significant level**.

OR

- **Mitigation Alternative 5-2-2:** Implement **Mitigation Alternative 5-1-2** (adoption of a Precise Plan). Implementation of this measure would reduce the degree of project impacts on views and vistas and on the character of the surrounding area, but not to a less- than-significant level, and thus would result in a **significant unavoidable visual impact** (i.e., would require City adoption of a Statement of Overriding Considerations).

Impact 5-3: General Visual Compatibility Impact. The project's architectural design

S

Mitigation 5-3. Implement one of the following two alternative mitigations:

Applicant, City

LS or
 SU

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation Mitigation Measures

Mitigation
 Responsibility Potential
 Significance
 With
 Mitigation

concept is generally compatible with attractive new development in the immediate vicinity. However, the proposed project would substantially increase the height, mass, scale, and intensity of development on the site. The project's 13 residential towers, averaging 250 feet in height, would be over five times the height of the tallest structures in the immediate vicinity. The mid-rise residential and office buildings would be approximately two times the height of the tallest structures in the immediate vicinity. The project height would have a **significant visual compatibility impact**.

- *Mitigation Alternative 5-3-1:* Reduce project building heights to a maximum of four stories and/or 50 feet, consistent with the general scale of adjacent and nearby development. Orient project buildings to relate to existing adjacent buildings and open spaces (also see *Mitigation 5-5*). Implementation of this measure would reduce general visual compatibility impact to a **less-than-significant level**.

OR

- *Mitigation Alternative 5-3-2:* Implement *Mitigation Alternative 5-1-2* (adoption of a Precise Plan). This mitigation would substantially reduce project visual compatibility impacts, but not to a less-than-significant level, and thus would result in a **significant unavoidable visual impact** (i.e., would require City adoption of a Statement of Overriding Considerations).

Impact 5-4: Potential Light and Glare Impacts.
 Lighting in the outdoor spaces of the proposed project and interior lighting emanating from structures could create light and glare impacts on surrounding residences, commercial properties,

S

Mitigation 5-4. Implement the following measures:

Applicant

LS

- Design project lighting to confine illumination to the project site, minimizing light spillage to

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
City of Redwood City
March 5, 2003
Impacts

Potential
Significance
Without
Mitigation

Mitigation Measures

Mitigation
Responsibility

Potential
Significance
With
Mitigation

and recreational areas. Additionally, daytime light reflection from the windows of the tower structures could create glare impacts on the surrounding areas. These effects may have a ***potentially significant impact***.

adjacent residences, offices, commercial uses, and public open space and recreational areas. Use cut-off fixtures for outdoor areas. Provide structural or vegetative screening from sensitive adjacent uses.

- Reduce project building heights to approximately 50 feet, as noted in *Mitigation Alternatives 5-2-1 and 5-3-1*, to minimize interference with dark sky views. If buildings taller than 50 feet are developed, some degree of tinting should be considered for glazing to reduce the nighttime visual impact of residential units.

Implementation of these measures would reduce potential light and glare impacts to a ***less-than-significant level***.

S = Significant

LS = Less than significant

SU = Significant unavoidable impact

NA = Not applicable

Marina Shores Village Project City of Redwood City March 5, 2003 Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
<p>Impact 5-5: Shadow Impacts. The project would cast substantial shadows on adjacent residential, commercial, office, and public waterfront areas during part of the year. Additionally, a significant portion of the buildings and open space within the project site would be shadowed throughout the year.</p> <p>Project buildings would cast shadows during morning hours September through March over portions of the Marina Pointe townhouses and Outer Pete's Harbor. During the longest shadow periods in December, project buildings would also cast shadows over portions of the Bair Island Wildlife Refuge in the morning; over the "Villas at Bair Island" and Bair Island Marina throughout the day; and over Redwood Creek and offices of Seaport Center during the afternoon. Portions of the proposed public park on the USFWS parcel would be in shadow throughout the afternoon hours of September through March.</p> <p>These shadowing effects, as illustrated by Figures 5.10 through 5.15 in this EIR, would have a significant visual impact.</p>	S	<p>Mitigation 5-5. Implement one of the following two alternative mitigations:</p> <ul style="list-style-type: none"> ■ <i>Mitigation Alternative 5-5-1:</i> Reduce in height, step back, and/or relocate the towers within the proposed project to reduce shadow impacts on sensitive areas and uses, including perimeter waterways, recreational and public open spaces, residences, and internal project water areas and pedestrian courtyards. Minimize winter shadow impacts on Smith Slough/Outer Pete's Harbor, the Marina Pointe townhouses, and the "Villas at Bair Island"/Bair Island Marina. Implementation of this mitigation would reduce project shadow impacts to a less-than-significant level. ■ <i>Mitigation Alternative 5-5-2:</i> Implement <i>Mitigation Alternative 5-1-2</i> (adoption of a Precise Plan). This mitigation would substantially reduce project visual compatibility impacts, but not to a less-than-significant level, and thus would result in a significant unavoidable visual impact (i.e., 	Applicant, City	LS, SU

S = Significant
LS = Less than significant
SU = Significant unavoidable impact
NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

would require City adoption of a Statement of Overriding Considerations).

Impact 5-6: Inconsistency with City Urban Design Objectives. The proposed project, as presented by the applicant for review in this EIR, would not create the on- and off-site design relationships necessary for successful achievement of the City's urban design objectives (i.e., the Redwood City Planning Division Urban Design Guidelines). The proposed project buildings would not relate adequately to adjacent public spaces, including Bair Island Road, Redwood Creek, and perimeter public trails. On the current project plans, residential towers do not appear arranged to create a distinctive skyline composition, and they shade unique, publicly accessible open space areas. Open space and landscape design aspects of the project are at a preliminary stage, and the character and function of internal and perimeter project open spaces are not yet readily discernible. Nevertheless, the project would be inconsistent with City-adopted urban design objectives and would have incompatible, visually adverse effects on adjacent development and the quality of adjacent public spaces. These effects would constitute a **significant adverse visual impact**.

S

Mitigation 5-6. The project architect and City staff have participated in an ongoing series of meetings to address the potential visual effects of the proposed project. The following additional mitigation measures shall be incorporated in future project design refinements:

Applicant

LS

- Vary the project architectural grid as needed to create an intentional design response toward perimeter public spaces, particularly Bair Island Road, Redwood Creek, and Smith Slough/Outer Pete's Harbor, and to create an orderly relationship to the north side of the "Villas at Bair Island" apartments.
- Arrange the residential towers according to a design concept for a composed and memorable skyline. Vary project building heights as appropriate for the skyline design concept to minimize shadow impacts on adjacent development and on public as well as open spaces.
- Minimize the visual effect of two- and three-story perimeter parking garages and/or change the project design to enhance

S = Significant

LS = Less than significant

SU = Significant unavoidable impact

NA = Not applicable

Marina Shores Village Project
City of Redwood City
March 5, 2003
Impacts

Potential
Significance
Without
Mitigation

Mitigation Measures

Mitigation
Responsibility

Potential
Significance
With
Mitigation

adjacent public spaces, including Bair Island Road, Redwood Creek, PG&E/USFWS lands proposed for a public park, and Outer Pete's Harbor. Face exterior parking structures with townhouses, stairs and landings, and enhanced architectural details.

- Consider massing, glazing, and/or surface material changes to reduce the corner shadowing effect of the project's residential towers.
- Prepare more-detailed open space and landscape design plans to indicate the design approach to all publicly accessible open spaces. Note on the plans which areas are open to the general public and during what hours of the day. Include a description of the function and design intent of perimeter public open spaces. Prepare enlarged design plans and cross sections for Bair Island Road; public ways along Redwood Creek, Steinberger Slough, and Smith Slough/Outer Pete's Harbor; and publicly accessible ways along interior project water areas.

Implementation of these measures would reduce urban design related visual impacts to a **less-**

S = Significant
LS = Less than significant
SU = Significant unavoidable impact
NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation Mitigation Measures

Mitigation
 Responsibility Potential
 Significance
 With
 Mitigation

than-significant level.

Impact 5-7: Internal Visual Relationship of Project Development to Electrical Transmission Lines. The quality and livability of the closest project residences could be substantially impacted by views of the PG&E electrical transmission lines and associated towers that traverse the easement between the Peninsula Marina property and the Pete's Harbor property. These visual effects would represent a ***potentially significant visual impact.***

S

Mitigation 5-7. The following measures shall be implemented to reduce the degree of electrical transmission line visual impact: (1) no residential structure shall be located within 100 feet of the edge of the easement; (2) prospective residents of all project residential units within 200 feet of the edge of the transmission line easement shall be notified in writing by the developer that there are transmission lines within that distance; this notification shall be achieved by including such disclosure in the sales materials to be signed by project residents; (3) reduce the visual impact of the existing transmission towers and lines through incorporation in the project landscaping plan of strategic planting along the length of the overhead transmission line easement, subject to approval by the Community Development Services Department and Public Works Services Department, indicating tree planting on the project's border with the easement; and (4) similarly, use strategic landscaping at other key on-site vantage points with views of these transmission lines and towers to reduce their adverse impact on the visual quality of the community (i.e., strategic streetside and median planting along affected segments of the key project roads, etc.). Even with implementation of

Applicant

SU

- S = Significant
- LS = Less than significant
- SU = Significant unavoidable impact
- NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation Mitigation Measures

Mitigation
 Responsibility Potential
 Significance
 With
 Mitigation

these four recommended measures, however, the adverse visual impact of these tower lines, given the height and prominence of the existing tower lines, would not be concealed or reduced to less-than-significant levels and would therefore represent a **significant unavoidable impact** (i.e., would require City adoption of a Statement of Overriding Considerations).

POPULATION, HOUSING, AND EMPLOYMENT

Impact 6-1: Project-Related Resident Population Growth. The project proposes residential development on the project site as well as extension of roads and other infrastructure into the site. The proposed 1,930 housing units would house an estimated on-site total of 4,020 people. Taking into consideration the approximately 110 persons assumed to be currently living on-site, the **net** on-site population increase would be approximately 3,910 persons. This project-related resident population growth has the potential to cause a number of population-related significant adverse environmental effects and also contribute to a number of significant cumulative adverse environmental effects (traffic, public services, noise, and air quality) as described in other sections of this EIR (see chapters 7, 10, 13, and 15), representing a **potentially significant**

S

Mitigation 6-1. Implement the mitigation measures identified in other chapters of this EIR related to project population-induced environmental impacts (traffic--chapter 7, public services--chapter 10, noise--chapter 13, air quality--chapter 15). Implementation of these measures would reduce identified environmental impacts associated with the project-related population increase to a **less-than-significant level**, with the exception of project and cumulative transportation impacts (see chapter 7), project-related and cumulative municipal water service demands (*Impact 10-1*), and long-term regional air emissions (*Impact 15-2*), which after implementation of the associated mitigation measures identified in this EIR, would remain **significant and unavoidable**.

Applicant

SU

- S = Significant
- LS = Less than significant
- SU = Significant unavoidable impact
- NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation Mitigation Measures

Potential
 Significance
 With
 Mitigation
 Mitigation
 Responsibility

project and cumulative impact.

Impact 6-2: Project-Related Employment Growth. The office and retail components of the project would ultimately employ roughly 880 people. This project-related local employment growth increment has the potential to result in employment-related environmental effects (traffic, public services, noise, and air quality) as described in corresponding chapters of this EIR (see chapters 7, 10, 13, and 15), representing a ***potentially significant project and cumulative impact.***

S

Mitigation 6-2. Implement the mitigation measures identified in other chapters of this EIR related to project employment-related environmental impacts (traffic--chapter 7, public services--chapter 10, noise--chapter 13, and air quality--chapter 15). Implementation of these measures would reduce identified environmental impacts associated with the project-related employment increase to a ***less-than-significant level***, with the exception of project and cumulative transportation impacts, project-related and cumulative municipal water service demand, and long-term regional air emissions, which after implementation of the associated mitigation measures identified in this EIR, would remain ***significant and unavoidable.***

Applicant

SU

TRANSPORTATION AND CIRCULATION

Impact 7-1: Project Impact on the El Camino Real/Whipple Avenue Intersection. During the PM peak hour under Existing and Background Conditions, the El Camino Real/Whipple Avenue intersection is expected to operate at LOS D, an acceptable level. The addition of project-generated traffic is expected to degrade operations at the intersection to LOS E, an

S

Mitigation 7-1. An improvement has been identified for this location in the *Redwood City Traffic Impact Mitigation Fee Study (TIMFS)*. The identified improvement includes the addition of a receiving lane for westbound right-turns, creating a "free" westbound right-turn movement. However, the level of service analysis conducted for this EIR indicates that this improvement would

Applicant, City

SU

- S = Significant
- LS = Less than significant
- SU = Significant unavoidable impact
- NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

unacceptable level, during the PM peak hour.
 This effect would represent a **significant impact**.

not mitigate the project impact at the intersection.

If the nearby Whipple Avenue CalTrain railroad crossing is reconstructed to provide a grade-separated crossing, the El Camino Real/Whipple Avenue intersection would be expected to operate acceptably.

Without a grade-separated railroad crossing, the eastbound approach to the intersection would have to be widened in order for the intersection to operate acceptably under Project Conditions. The widening would need to include provision of a dedicated eastbound right turn lane, and the existing shared through/right-turn lane would need to be converted to a dedicated through lane. This improvement would require additional right-of-way acquisition and building structure modification since both sides of the affected approach are currently developed with buildings near the roadway. The measures identified above are considered to be infeasible due to these right-of-way constraints. Therefore, the effect of project traffic on the El Camino Real/Whipple Avenue intersection would represent a **significant unavoidable impact**.

Impact 7-2: Project Impact on U.S. 101 Southbound Mixed-Flow Lanes, Whipple

S

Mitigation 7-2. The project shall minimize impacts on this freeway segment by

Applicant

SU

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
City of Redwood City
March 5, 2003
Impacts

Potential
Significance
Without
Mitigation

Mitigation Measures

Mitigation
Responsibility

Potential
Significance
With
Mitigation

Avenue to Woodside Road Segment--AM Peak Hour. C/CAG's 2001 *San Mateo CMP Monitoring Report* determined that this freeway segment currently operates at LOS F--i.e., existing volumes exceed the segment's capacity--in the AM peak hour. The project is expected to increase volumes by more than one percent of the freeway segment's capacity during the AM peak hour. This effect would represent a **significant impact**.

implementing a transportation demand management (TDM) program. The purpose of this program would be to encourage alternative travel modes to the single-occupant vehicle, thereby reducing the number of trips added to this freeway segment and lessening this project impact.

As part of the proposed project, the applicant is proposing to establish, in cooperation with SamTrans, a shuttle bus system connecting the project via downtown Redwood City to the CalTrain station and El Camino intraregional transit corridor approximately 1.5 miles southeast of the project site. Listed at the end of chapter 7 (Transportation and Circulation) are other TDM measures currently being considered for the Marina Shores Village project as part of the *Bayfront Study*. In consultation with the City of Redwood City and City/County Council of Governments of San Mateo County (C/CAG), the project sponsor shall design a comprehensive TDM program for approval by the City and by C/CAG prior to City approval of any tentative subdivision map or development agreement for the project. It is recommended that the TDM measures implemented by the proposed project be consistent with those identified for residential development and employment centers in the

S = Significant
LS = Less than significant
SU = Significant unavoidable impact
NA = Not applicable

Marina Shores Village Project
City of Redwood City
March 5, 2003
Impacts

Potential
Significance
Without
Mitigation

Mitigation Measures

Mitigation
Responsibility

Potential
Significance
With
Mitigation

City's Bayfront Study.

The TDM program shall include a provision for preparation by the project sponsor, and review by the City or City-designated TDM coordinator, of an *annual report* documenting the effectiveness of the TDM program. Future additions or changes to the TDM program shall be identified by the City or C/CAG, if and as necessary, based on the program's annually documented effectiveness in reducing the number of project-generated vehicular trips. This TDM annual report review process shall remain in effect for five years after full project buildout.

Full mitigation of this impact (i.e., to a less-than-significant level) would require the addition of another southbound through lane to the freeway segment. The addition of another through travel lane, with a design capacity of 2,300 vehicles per lane per hour, would more than offset the addition of project traffic (the project is expected to add 145 trips to this freeway segment). However, freeway widening is generally considered to be beyond the scope of a single development project--i.e., an infeasible mitigation requirement. Therefore, the effect of project traffic on this freeway segment is considered to represent a **significant unavoidable impact**.

S = Significant
LS = Less than significant
SU = Significant unavoidable impact
NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

Impact 7-3: Project Impact on U.S. 101 Southbound Mixed-Flow Lanes, Woodside Road to Marsh Road Segment--AM Peak Hour. C/CAG's 2001 San Mateo CMP Monitoring Report determined that this freeway segment currently operates at LOS F--i.e., existing volumes exceed the segment's capacity--in the AM Peak Hour. The project is expected to increase volumes by more than one percent of the freeway segment's capacity during the AM peak hour. This effect would represent a **significant impact**.

S

Mitigation 7-3. The project shall minimize impacts on this freeway segment by implementing a transportation demand management (TDM) program, as described under *Mitigation 7-2*.

Applicant

SU

Full mitigation of this impact (i.e., to a less-than-significant level) would require the addition of another southbound through lane to the freeway segment. The addition of another through travel lane, with a capacity of 2,300 vehicles per lane per hour, would more than offset the addition of project traffic (the project is expected to add 126 trips to this freeway segment). However, freeway widening is generally considered to be beyond the scope of a single development project--i.e., an infeasible mitigation requirement. Therefore, the effect of project traffic on this freeway segment is considered to represent a **significant unavoidable impact**.

Impact 7-4: Project Impact on Westbound SR 84, County Line to University Avenue and University Avenue to Willow Road Segments--AM Peak Hour. C/CAG's 2001 San Mateo CMP Monitoring Report determined that these two freeway segments currently operate at LOS F--i.e., the existing volumes exceed both

S

Mitigation 7-4. The project shall minimize impacts on these two freeway segments by implementing a transportation demand management (TDM) program, as described under *Mitigation 7-2*.

Applicant

SU

Full mitigation of this impact (i.e., to a less-than-

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation Mitigation Measures

Potential
 Significance
 With
 Mitigation
 Mitigation
 Responsibility

segments' capacities, in the AM peak hour (even after the planned widening is completed). Volumes are expected to continue to exceed the segments' capacity under Background and Project Conditions. The project is expected to increase volumes by more than one percent of each segment's capacity during the AM peak hour. This effect would represent a **significant impact**.

significant level) would require the addition of another westbound through lane to both segments. The addition of another through travel lane, with a design capacity of 1,100 vehicles per lane per hour, would more than offset the addition of project traffic (the project is expected to add 57 trips to the segments). However, freeway widening is generally considered to be beyond the scope of a single development project--i.e., an infeasible mitigation requirement. Therefore, the effect of project traffic on these segments is considered to represent a **significant unavoidable impact**.

Impact 7-5: Project Impact on U.S. 101 Southbound Mixed-Flow Lanes, Whipple Avenue to Woodside Road Segment--PM Peak Hour. C/CAG's 2001 San Mateo CMP Monitoring Report determined that the segment of this freeway between Whipple Avenue and the county line currently operates at LOS D, an acceptable level. However, the capacity analysis in this EIR for Existing, Background, and Project Conditions indicated that volumes on the Whipple Avenue to Woodside Road segment exceed its capacity. The project is expected to increase volumes by more than one percent of the freeway segment's capacity during the PM peak hour. This effect would represent a **significant impact**.

S

Mitigation 7-5. The project shall minimize impacts on this freeway segment by implementing a transportation demand management (TDM) program, as described under Mitigation 7-2.

Applicant

SU

Full mitigation of this impact (i.e., to a less-than-significant level) would require the addition of another southbound through lane to the freeway segment. The addition of another through travel lane, with a capacity of 2,300 vehicles per lane per hour, would more than offset the addition of project traffic (the project is expected to add 127 trips to this freeway segment). However, freeway widening is generally considered to be beyond

- S = Significant
- LS = Less than significant
- SU = Significant unavoidable impact
- NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

the scope of a single development project--i.e., an infeasible mitigation requirement. Therefore, the effect of project traffic on this freeway segment is considered to represent a **significant unavoidable impact**.

Impact 7-6: Project Impact on Eastbound SR 84, Willow Road to University Avenue and University Avenue to the County Line Segments--PM Peak Hour. C/CAG's 2001 San Mateo CMP Monitoring Report determined that these freeway segments currently operate at LOS F--i.e., existing volumes exceed both segments' capacities in the PM peak hour (even after the planned widening is completed). Volumes are expected to continue to exceed the segments' capacity under Background and Project Conditions. The project is expected to increase volumes by more than one percent of each segment's capacity during the PM peak hour. This effect would represent a **significant impact**.

S

Mitigation 7-6. The project shall minimize impacts on this freeway segment by implementing a transportation demand management (TDM) program, as described under *Mitigation 7-2*.

Applicant

SU

Full mitigation of this impact (i.e., to less-than-significant level) would require the addition of another eastbound through lane to both segments. The addition of another through travel lane, with a capacity of 1,100 vehicles per lane per hour, would more than offset the addition of project traffic (the project is expected to add 58 trips to the segments). However, freeway widening is generally considered to be beyond the scope of a single development project--i.e., an infeasible mitigation requirement. Therefore, the effect of project traffic on these segments is considered to represent a **significant unavoidable impact**.

Impact 7-7: Transit Accessibility Impact. *Mitigation 4-3* in the Land Use chapter of this EIR

S

Mitigation 7-7. Implement *Mitigation 4-3*. As part of or in addition to that mitigation, the project

Applicant

LS

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation Mitigation Measures

Potential
 Significance
 With
 Mitigation
 Mitigation
 Responsibility

calls for establishment of a convenient *transit link* between the project and local and regional express transit corridors and/or hubs, including the El Camino Real transit corridor and Redwood City CalTrain intermodal station, and between the project, downtown Redwood City, and other local employment, financial, and retail concentrations. This link could take the form of a private system and/or SamTrans operated routes. Under either scenario, the project, as well as other anticipated development in the Bayfront/Bair Island Road area, could justify the addition of one or more SamTrans bus routes into the area (the issue of expanded transit services is also discussed in the City's *Bayfront Study*--see subsection 7.2.2.d in EIR chapter 7, Transportation and Circulation). Currently, there is inadequate existing space for a SamTrans bus to turn around in the Bair Island Road area, a roadway deficiency that would preclude a future bus route from conveniently serving the area. This deficiency would therefore represent a **significant impact**.

shall accommodate on-site or contribute its fair share to a bus turn-around in the Bair Island Road area to allow for more convenient SamTrans bus service into the area. With implementation of a bus turn-around in the area, the transit accessibility impact would be reduced to a **less-than-significant level**.

Impact 7-8: Project Pedestrian Accessibility Impacts. There is access from Bair Island Road to the Bair Island Wildlife Refuge. This area contains a multi-use path that provides facilities for both pedestrians and bicycles. However, existing pedestrian facilities near the project site

S

Mitigation 7-8. The project shall construct a continuous pedestrian facility, such as a sidewalk and/or pedestrian path, along the entire length of the project's Bair Island Road frontage. With such a facility, this impact would be reduced to a **less-than-significant level**.

Applicant

LS

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation Mitigation Measures

Potential
 Significance
 With
 Mitigation
 Mitigation
 Responsibility

consist of discontinuous sidewalks along Bair Island Road and East Bayshore Road. If the project were constructed in a similar manner without a sidewalk along its local Bair Island Road frontage, the project would contribute to and exacerbate the existing discontinuity of pedestrian facilities. This effect would represent a **significant impact**.

Impact 7-9: Bicycle Accessibility Impact. The planned San Francisco Bay Trail extension may include bicycle facilities along Bair Island Road in the project vicinity, including the project's Bair Island Road frontage. Construction of the proposed project could result in insufficient right-of-way width along Bair Island Road to accommodate such facilities. This effect would represent a **significant impact**.

S

Mitigation 7-9. The project shall dedicate adequate right-of-way along Bair Island Road to accommodate future bicycle facilities. With a dedicated right-of-way of adequate width, the project would not preclude future construction of adequate bicycle facilities in the area and this impact would be reduced to a **less-than-significant level**.

Applicant

LS

Impact 7-10: Project Condition Emergency Access Impact. During an emergency evacuation of the Bair Island Road area with the proposed project at full occupancy, volumes on Bair Island Road, East Bayshore Road, and Whipple Avenue (near the project site) could be expected to exceed roadway capacities, resulting in LOS F operations. This effect would represent a **significant impact**. A sensitivity analysis has been conducted to determine how many new

S

Mitigation 7-10. The extension of Blomquist Street over Redwood Creek to the East Bayshore Road/Bair Island Road intersection is currently planned by the City and partially funded. The Blomquist Street Extension over Redwood Creek would reduce this potential emergency access impact to a **less-than-significant level--i.e.,** would provide sufficient emergency access to the Bair Island Road area with full buildout of the proposed project.

City

LS

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation Mitigation Measures

Potential
 Significance
 With
 Mitigation
 Mitigation
 Responsibility

project residential units could be developed in the Bair Island Road area before the Blomquist Street Extension would be needed to maintain adequate emergency access. The results of the analysis (available for review at the City of Redwood City Community Development Services Department, City Hall, 1017 Middlefield Road) indicate that the existing roadway has the capacity to accommodate 750 new dwelling units before a secondary access would be needed to accommodate the assumed emergency scenario.

This additional access is also expected to change local vehicular travel patterns and the assignment of project-generated traffic, resulting in a **potentially significant secondary project impact** at the Blomquist Street/Maple Street intersection (see *Secondary Impact 7-10A* which follows).

Secondary Impact 7-10A: Project-Related Secondary Impact of the Blomquist Extension (Mitigation 7-10) on the Blomquist Street/Maple Street Intersection. With completion of the Blomquist Street Extension, the Blomquist Street/Maple Street intersection would be expected to operate at LOS D during the AM peak hour and LOS F during the PM peak hour under Background Conditions. With the addition of the project traffic, operations at the intersection would be expected to degrade to LOS F during both the AM and PM peak hours. The change in the average delay at the intersection due to the project is expected to be more than 5.0 seconds. The intersection is also expected to satisfy the Caltrans Peak Hour Volume Warrant for traffic signal installation during both the AM and PM

S

Secondary Mitigation 7-10A. To mitigate project-related secondary traffic impacts at the Blomquist Street/Maple Street intersection: (a) the intersection shall be four-way stop-controlled; and (b) the northbound approach shall be widened to include a dedicated left turn lane and a shared through/right-turn lane. With these improvements, the intersection is expected to operate at LOS C during the AM and PM peak hours under Project Conditions.

City, Applicant

LS

Alternatively, install a traffic signal at the intersection. With signalization, the intersection is expected to operate at LOS B during the AM and PM peak hours under Project Conditions.

Or, as a third alternative, install a roundabout at

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation Mitigation Measures

Potential
 Significance
 With
 Mitigation
 Mitigation
 Responsibility

peak hours under Project Conditions. These secondary effects of *Mitigation 7-10*, the Blomquist Street Extension, would represent a **significant secondary impact**.

the intersection. With the roundabout, the intersection would operate at LOS A during the AM and PM peak hours under Project Conditions.

Implementation of one of these secondary mitigation alternatives to City satisfaction would be a project responsibility. Implementation of any one of these three mitigation alternatives would reduce the project's secondary impact at the Blomquist Street/Maple Street intersection to a **less-than-significant level**.

Impact 7-11: Project Impacts on C/CAG's Congestion Management Plan (CMP) Roadway Network--PM Peak Hour. The proposed project is expected to generate 1,099 net new peak-hour trips during the PM peak hour. Because the project trip generation rate is more than 100 net new peak-hour trips and the project is subject to CEQA review, the proposed project must meet the requirements presented in the *C/CAG Guidelines for the Implementation of the Land Use Component of the 1999 Congestion Management Program*. Until the project meets these requirements to C/CAG satisfaction, the project's potential effects on C/CAG's CMP roadway network in the PM peak hours are considered to be **significant**.

S

Mitigation 7-11. Based on the C/CAG requirements, and as required under *Mitigation 7-2* herein, the project sponsor shall implement and maintain a transportation demand management (TDM) program that meets the requirements presented in the *C/CAG Guidelines for the Implementation of the Land Use Component of the 1999 Congestion Management Program* in order to reduce the number of trips on the CMP roadway network. The TDM program, to be developed by the project sponsor, must be approved by both the City of Redwood City and C/CAG prior to City approval of any tentative subdivision map or development agreement for the proposed project. Implementation of this measure would reduce the impact to a **less-than-significant level**.

Applicant

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

LSImpact 7-12: Project Driveway Safety Impacts. If not properly aligned and accompanied by sight line obstruction controls (landscaping and street trees could limit sight distance for drivers entering and existing driveways), one or more of the project driveway connections to Bair Island Road could be dangerous intersections, representing a **significant impact**.

S

Mitigation 7-12. The following guidelines shall be followed in finalizing project access details:

Applicant

LS

- All driveways shall be aligned with existing driveways on the opposite side of Bair Island Road. If the driveways cannot be aligned, a minimum of 150-foot offset shall be provided between opposing driveways to minimize conflicting turning movements in the center two-way left turn lane.
- To minimize the potential for visual restrictions, a minimum sight distance of 200 feet shall be maintained at each driveway based on a posted speed limit of 25 mph and a design speed of 30 mph (assumed to be 5 mph higher than posted). This distance is the minimum distance that a driver of an exiting vehicle in a driveway should be able to see in each direction.
- Channelization of the driveways shall be provided to clearly direct drivers along safe vehicle paths and minimize pavement area.

Incorporation of these measures in the final project access details would reduce this impact to a **less-than-significant level**.

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
City of Redwood City
March 5, 2003
Impacts

Potential
Significance
Without
Mitigation Mitigation Measures

Mitigation
Responsibility Potential
Significance
With
Mitigation

S = Significant
LS = Less than significant
SU = Significant unavoidable impact
NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

Impact 7-13: Project Internal Circulation

Impact. The project's internal vehicular, pedestrian, and bicycle circulation plan remains conceptual at this preliminary point. On-site circulation would be provided by two-way drive aisles between Bair Island Road and the southern reaches of the site. Internal roadway dimensions, circulation aisle widths, turnaround details, etc., have not yet been specified. If not properly designed with adequate roadway and circulation aisle widths, turning radii, and turnaround dimensions, the project internal vehicular circulation system could include substantial safety hazards and/or emergency access deficiencies, representing a *significant impact*.

S

Mitigation 7-13. The project's final internal circulation system design shall incorporate the following minimum standards:

Applicant

LS

- all two-way circulation aisles shall be a minimum of 24-feet wide;
- all one-way circulation aisles providing access to any 60-degree parking shall be a minimum of 16-feet wide;
- turning templates shall be applied to the final detailed site plans to ensure that vehicles can negotiate all required turning movements;
- since moving vans will need to access buildings at the south end of the site, the internal circulation system shall be designed to safely and conveniently accommodate these vehicles;
- dead-end circulation aisles are not desirable; turnarounds shall be provided at all dead-end parking aisles, some of which are already shown on the preliminary site plan;
- the internal circulation plan shall be subject to review and approval by the City to ensure that adequate emergency access is

S = Significant

LS = Less than significant

SU = Significant unavoidable impact

NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

provided;

- direct sidewalk connections shall be provided between all buildings; and
- all sidewalks should meet Americans with Disabilities Act (ADA) and City design standards.

Implementation of these measures would reduce this potential internal circulation impact to a ***less-than-significant level***.

Impact 7-14: Potentially Inadequate Project Parking Provisions. In order for the project to comply with City parking requirements and meet other applicable parking design standards and common practice, parking for all project residential units, commercial activities, and recreational provisions would have to be contained on-site, in numbers and configurations which are sufficient to meet peak-period parking demands for these project uses and which are within convenient proximity to users. The project parking provisions must also be designed and managed to meet the parking control and security concerns of the City.

S

Mitigation 7-14. Design and management measures shall be incorporated into the project to ensure that adequate peak-period parking provisions are provided within convenient proximity to users, and designed and managed to meet the parking control and security concerns of the Redwood City Police Department. The design and management measures shall include the following:

Applicant

LS

(1) *parking space-by-location provisions* that are adequate in number and convenient in proximity to projected peak residential, commercial, and recreational (public access) land uses;

S = Significant

LS = Less than significant

SU = Significant unavoidable impact

NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

Based on City code requirements, the proposed project would be required to provide 5,427 parking spaces. The project, as proposed, would provide 5,120 parking spaces. Therefore it is recommended that the proposed project implement a shared parking concept (where different land uses share their parking facilities). Under a shared parking approach between the residential and commercial components of the project (which would each have different peak parking demand times), it is estimated that the project would have a peak temporal parking demand for 4,388 spaces, which is less than the 5,120 total parking spaces proposed. The current conceptual parking program description does not yet incorporate a level of design and management detail to permit full evaluation of parking adequacy--e.g., the relationships between the location of the various parking provisions and associated residential, commercial, and public recreational demands, the adequacy and competence of project parking management and security provisions (defensive design features, exterior and interior lighting, security surveillance and monitoring equipment, etc.), and adequacy of provision for interaction between project security personnel and the Redwood City Police Department.

(2) an *Ongoing Parking Management Program*, prepared for City staff review and approval, that tailors parking demand to availability within the development complex, details daytime and evening shared parking aspects, provides for maintenance of a 10 percent margin of available parking at all times, and includes provisions for *routine monitoring of parking use* as project phased construction and occupancy occurs, continuing for three years following project buildout; and includes *design provisions to permit parking expansion* to be readily accommodated on-site, perhaps through the ability to construct additional parking decks, if such a need is indicated by the *parking monitoring program*.

Any future parking expansion shall not exceed the adopted per use parking space requirements of the City, and shall incorporate design features that, to the satisfaction of the City, reduce potential adverse land use compatibility or visual impacts to less-than-significant levels (e.g., locations behind residential and/or commercial structures, architectural features, vegetative screening); and

(3) *parking control and security provisions* that may include, but are not limited to, a full-time, on-site security and monitoring operation (e.g.,

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation Mitigation Measures

Potential
 Significance
 With
 Mitigation
 Mitigation
 Responsibility

If one or more of the parking design objectives identified above (total spaces, convenient proximity, and adequate control and security) are not met, the project on-site parking provisions could be inadequate, could result in overflow parking and spillover onto adjacent and nearby streets, and could result in inordinate patrolling and enforcement demands on the Redwood City Police Department. Either of these effects would represent a **significant impact**.

security personnel, surveillance cameras, emergency telephones, adequate security lighting, adequate patrolling, adequate emergency access, and adequate coordination between project security operations and Redwood City Policy Department operations).

Implementation of these measures would reduce identified potential parking impacts to a **less-than-significant level**.

Impact 7-15: Cumulative (2020) With Project Impact on the El Camino Real/Whipple Avenue Intersection. Under Cumulative (2020) Without Project conditions, the El Camino Real/Whipple Avenue intersection is expected to operate at an unacceptable LOS E and LOS F during the AM and PM peak hours, respectively. The addition of project traffic is expected to increase the average delay at the intersection by 9.9 and 17.5 seconds during the AM and PM peak hours, respectively. This effect would represent a **significant cumulative impact**.

S

Mitigation 7-15. An improvement has been identified for this location in the *Redwood City Traffic Impact Mitigation Fee Study* (TIMFS). The identified improvement includes the addition of a “free” westbound right-turn lane (i.e., a right turn lane that would not be controlled by the traffic signal) and associated receiving lane. However, the level of service analysis conducted for this EIR indicates that this improvement would not provide acceptable operations during the AM or PM peak hour under neither the Cumulative (2020) Without Project nor Cumulative (2020) With Project scenarios. Therefore, implement either one of the following two alternative mitigation approaches in order to reduce the impact to a less-than-significant level:

City, Applicant

SU

(1) *Grade-Separated Railroad Crossing at*

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
City of Redwood City
March 5, 2003
Impacts

Potential
Significance
Without
Mitigation

Mitigation Measures

Mitigation
Responsibility

Potential
Significance
With
Mitigation

Whipple Avenue. The cumulative EIR LOS analysis for this intersection included adjustments to signal timing to account for the nearby CalTrain railroad crossing. Calculations conducted for the intersection under Cumulative (2020) With Project conditions without adjusted signal timings (i.e., if the train did not affect the operations at the intersection) indicate that the intersection would operate acceptably during the AM and PM peak hours. Therefore, if the railroad tracks were to be grade-separated from Whipple Avenue, the intersection is expected to operate acceptably. However, due to the limited distance between the intersection and the CalTrain railroad tracks, grade separation may not be feasible. It should be noted that the grade separation of this railroad crossing has been identified as an objective in the Redwood City Strategic General Plan.

(2) Widening of the Eastbound Intersection Approach to Achieve Acceptable LOS During Both the AM and PM Peak Hours. For the intersection to operate at an "acceptable" LOS (D or better) under Cumulative (2020) With Project conditions without a railroad grade separation at Whipple Avenue, provide a dedicated right turn lane, two through lanes, and a dedicated left turn lane on the eastbound approach to the intersection (currently, the eastbound approach is

S = Significant
LS = Less than significant
SU = Significant unavoidable impact
NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

configured with one shared through/left-turn lane and one shared through/right-turn lane). In addition, change the east-west left turn signal phasing from split (i.e., shared with opposing through traffic) to protected (i.e., exclusive). With these lane additions and signal phasing modifications, the intersection would be expected to operate acceptably (LOS D) during the AM and PM peak hours under Cumulative (2020) With Project conditions.

Widening the eastbound approach would tend to increase peak eastbound traffic volumes on a residential street and would require careful design to provide enough physical clearance to allow opposing eastbound and westbound left turns to proceed simultaneously. Additionally, both of the mitigation alternatives discussed above are considered to be infeasible due to right-of-way and physical constraints. Therefore, the addition of project traffic to the El Camino Real/Whipple Avenue intersection is expected to result in a **significant unavoidable cumulative impact**.

Impact 7-16: Cumulative (2020) With Project Impact on the Veterans Boulevard/Whipple Avenue Intersection. Under Cumulative (2020) Without Project conditions, the Veterans Boulevard/Whipple Avenue intersection is

S

Mitigation 7-16. An improvement has been identified for this intersection in the *Redwood City Traffic Impact Mitigation Fee Study (TIMFS)*. The identified improvement includes the addition of a dedicated eastbound right turn lane. However,

City, Applicant

- S = Significant
- LS = Less than significant
- SU = Significant unavoidable impact
- NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

expected to operate at LOS E, an unacceptable level, during the AM peak hour, and LOS D, an acceptable level, during the PM peak hour. The addition of project traffic is expected to degrade operations at the intersection to LOS E during the PM peak hour, an unacceptable level. Furthermore, the addition of project traffic is expected to increase the average delay at the intersection by more than 5.0 seconds during the AM and PM peak hours. Both of these effects would represent a **significant cumulative impact**.

the level of service analysis conducted for this EIR indicates that this improvement alone would not provide acceptable operations during the AM or PM peak hours under Cumulative (2020) With Project conditions.

Therefore, in addition to the TIMFS-identified additional eastbound right turn lane, the addition of a second westbound left turn lane is needed to mitigate this AM and PM peak-hour Cumulative (2020) With Project impact--i.e., to achieve LOS D at this intersection. This improvement would reduce this cumulative intersection impact to a **less-than-significant level**.

It should be noted that modification to the westbound approach may require widening of the Whipple Avenue overpass and will likely require coordination with Caltrans.

LS Impact 7-17: Cumulative (2020) With Project Impact on the Blomquist Street/Maple Street Intersection. The Blomquist Street/Maple Street intersection is expected to operate at LOS F during the AM and PM peak hours under Cumulative (2020) Conditions, with or without the proposed project. The addition of project traffic is expected to increase the average delay at the intersection by more than 5.0 seconds during the

S

Mitigation 7-17. Install a traffic signal at the intersection, widen the northbound approach to include a dedicated left turn lane and a shared through/right-turn lane, and reconfigure the southbound approach to include a dedicated left turn lane and a shared through/right-turn lane. With signalization and the recommended lane modifications, the intersection is expected to operate at LOS C during the AM and PM peak

Applicant, City

LS

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

AM and PM peak hours. The intersection is also expected to meet the Caltrans "Peak Hour Volume Warrant" for traffic signal installation during the AM and PM peak hours under Cumulative (2020) With Project conditions. These effects would represent a **significant cumulative impact**.

hours under Cumulative (2020) With Project conditions.

Alternatively, install a roundabout at the intersection. With installation of a roundabout, the intersection is expected to operate at LOS A and LOS B during the AM and PM peak hours, respectively.

Implementation of either one of the above mitigation alternatives would reduce this cumulative impact at the Blomquist Street/Maple Street intersection to a **less-than-significant level**.

Impact 7-18: Cumulative (2020) With Project Impact on the Alameda de las Pulgas/Woodside Road Intersection. The Alameda de las Pulgas/Woodside Road intersection is expected to operate LOS F and LOS E during the AM and PM peak hours, respectively, under Cumulative Conditions with and without the project. Specifically, expected eastbound and westbound through volumes at the Alameda de las Pulgas/Woodside Road intersection under Cumulative Conditions (with and without the project) are expected to exceed the existing available capacity of the through lanes on Woodside Road (two through lanes in

S

Mitigation 7-18. To mitigate the Cumulative With Project impact at this intersection, add a third through lane on the eastbound and westbound Woodside Road approaches.

Applicant, City

LS

The eastbound approach to the intersection has a striped shoulder and the westbound approach has a wide shoulder that provides on-street parking. The existing dedicated right turn lanes for both approaches, when combined with the existing wide shoulders, could be restriped as a shared through/right-turn lane. With this modification, the intersection is expected to operate at LOS D during the AM and PM peak

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation Mitigation Measures

Potential
 Significance
 With
 Mitigation
 Mitigation
 Responsibility

each direction). The addition of project traffic is expected to increase the average delay at the intersection by more than 5.0 seconds during the AM peak hour. This effect would represent a **significant cumulative impact**.

hours under Cumulative (2020) With Project conditions. Therefore, these intersection modifications would reduce the Cumulative With Project impact at the Alameda de las Pulgas/Woodside Road intersection to a **less-than-significant level**.

It should be noted that the lane additions described above would eliminate existing on-street parking on Woodside Road.

Impact 7-19: Cumulative (2020) With Project Impact on the Broadway/ Woodside Road Intersection. The Broadway/Woodside Road intersection is expected to operate at LOS F during the AM and PM peak hours under Cumulative Conditions with and without the project. The addition of project traffic is expected to increase the average delay at the intersection by more than 5.0 seconds during the PM peak hour only. This effect would represent a **significant cumulative impact**.

S

Mitigation 7-19. Under Existing, Background, Project, and Cumulative (with and without the project) conditions, the intersection is expected to operate at LOS F with substantial delays. Due to right-of-way constraints, there are no feasible mitigation measures. Therefore, the project addition to the cumulative impact on the Broadway/Woodside Road intersection is expected to represent a **significant unavoidable cumulative impact**.

NA

SU

It should be noted that if the current study to analyze and identify operational improvements to the U.S. 101/Woodside Road interchange [see subsection 7.1.6(a) of EIR chapter 7-- Transportation and Circulation] results in improvements to this interchange, these improvements, if ever constructed, could improve

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

operations at the intersection.

Impact 7-20: Cumulative (2020) With Project Impact on the Veterans Boulevard/Woodside Road Intersection. The Veterans Boulevard/Woodside Road intersection is expected to operate at LOS F during the PM peak hour under Cumulative Conditions with and without the project. The addition of project traffic is expected to increase the average delay at the intersection by more than 5.0 seconds during the PM peak hour. This effect would represent a **significant cumulative impact.**

S

Mitigation 7-20. To mitigate this Cumulative With Project impact, widen the southbound approach on Veterans Boulevard to accommodate an additional through lane, with an associated receiving lane on the on-ramp to U.S. 101. With this improvement, the intersection is expected to operate at LOS D during the PM peak hour. This improvement would therefore reduce the Cumulative With Project impact at the Veterans Boulevard/Woodside Road intersection to a **less-than-significant level.**

Applicant, City

LS

It should be noted that the U.S. 101 on-ramp would have to be widened to accommodate the receiving lane south of the intersection and to accommodate merging with the ramp connection from eastbound Woodside Road. If the ramp is not sufficiently widened, merging congestion could degrade ramp operations, making this mitigation undesirable. Additionally, Caltrans approval would be required.

Impact 7-21: Cumulative (2020) With Project Impact on the Blomquist Street/Seaport Boulevard Intersection. The Blomquist Street/Seaport Boulevard intersection is expected to operate at LOS F during the AM and PM peak

S

Mitigation 7-21. To mitigate the Cumulative With Project impact at the Blomquist Street/Seaport Boulevard intersection, the southbound approach could be restriped to include a dedicated left turn lane, a shared through/left-turn lane, and a

Applicant, City

LS

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
City of Redwood City
March 5, 2003
Impacts

Potential
Significance
Without
Mitigation Mitigation Measures

Potential
Significance
With
Mitigation
Mitigation
Responsibility

hours under Cumulative Conditions with and without the project. The addition of project traffic is expected to increase the average delay at the intersection by more than 5.0 seconds during the AM and PM peak hours. This effect would represent a **significant cumulative impact**.

dedicated right turn lane. With this modification, the intersection is still expected to operate at unacceptable levels--LOS E and LOS F during the AM and PM peak hours, respectively. However, the average delay at the intersection would be reduced from 116.5 seconds and 105.7 seconds during the AM and PM peak hours to 70.2 and 94.5 seconds, respectively, under Cumulative (2020) With Project conditions. This modification would improve operations during the AM peak hour when compared to Cumulative (2020) Without Project conditions. During the PM peak hour, the improvement would reduce the increase in average delay to 2.7 seconds between Cumulative Without Project and Cumulative With Project conditions, thus reducing the cumulative project impact at this intersection to a **less-than-significant level**. Alternatively, for the Blomquist Street/Seaport Boulevard intersection to operate "acceptably" (at LOS D) during the AM and PM peak hours, implement all of the following modifications at the intersection:

- Restripe the northbound right turn lane to be a shared through/right-turn lane. This improvement would require the addition of a receiving lane on the north side of the intersection.

S = Significant
LS = Less than significant
SU = Significant unavoidable impact
NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

- Restripe the southbound approach to include a dedicated left turn lane, a shared through/left-turn lane, and a dedicated right turn lane.
- Change east/west left turns from protected to permitted phasing.

With these improvements, the intersection is expected to operate at LOS D during the AM and PM peak hours under Cumulative (2020) With Project conditions. It should be noted that the addition of a second receiving lane on the north leg of the intersection would require widening of the roadway over the existing railroad tracks, requiring coordination with the railroad company and extensive re-grading of the adjacent property. Additionally, removing the east/west protected left turn phase could be difficult due to the significant volume of heavy trucks at the intersection.

Impact 7-22: Cumulative (2020) With and Without Project Impact on U.S. 101 Southbound Mixed-Flow Lanes, Whipple Avenue to Woodside Road Segment--AM Peak Hour. Capacity analysis results indicate that the volume-to-capacity (V/C) ratio for southbound mixed-flow (i.e., non-HOV) lanes along this U.S.

S

Mitigation 7-22. The project shall minimize impacts on this freeway segment by implementing a transportation demand management (TDM) program, as described under *Mitigation 7-2*.

Applicant

SU

Full mitigation of this impact (i.e., to a less-than-

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation Mitigation Measures

Potential
 Significance
 With
 Mitigation
 Mitigation
 Responsibility

101 freeway segment under Cumulative Conditions would be greater than 1.0 (with and without the proposed project). The project is expected to increase traffic volumes by more than one percent of the freeway segment's capacity during the AM peak hour. This effect would represent a **significant cumulative impact**.

significant level) would require the addition of another southbound through lane to the freeway segment. The addition of another through travel lane, with a design capacity of 2,300 vehicles per lane per hour, would more than offset the addition of project traffic (the project is expected to add 145 trips to this freeway segment). However, freeway widening is generally considered to be beyond the scope of a single development project--i.e., an infeasible mitigation requirement. Therefore, the effect of project traffic on this freeway segment is considered to represent a **significant unavoidable impact**.

Impact 7-23: Cumulative (2020) With and Without Project Impact on U.S. 101 Southbound Mixed-Flow Lanes, Woodside Road to Marsh Road Segment--AM Peak Hour.
 Capacity analysis results indicate that the V/C ratio for southbound mixed-flow (i.e., non HOV) lanes along this U.S. 101 freeway segment under Cumulative Conditions would be greater than 1.0 (with and without the proposed project). The project is expected to increase traffic volumes by more than one percent of the freeway segment's capacity during the AM peak hour. This effect would represent a **significant cumulative impact**.

S

Mitigation 7-23. The project shall minimize impacts on this freeway segment by implementing a transportation demand management (TDM) program, as described under *Mitigation 7-2*.

Applicant

SU

Full mitigation of this impact (i.e., to a less-than-significant level) would require the addition of another southbound through lane to the freeway segment. The addition of another through travel lane, with a capacity of 2,300 vehicles per lane per hour, would more than offset the addition of project traffic (the project is expected to add 126 trips to this freeway segment). However, freeway widening is generally considered to be beyond

- S = Significant
- LS = Less than significant
- SU = Significant unavoidable impact
- NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

the scope of a single development project--i.e., an infeasible mitigation requirement. Therefore, the effect of project traffic on this freeway segment is considered to represent a **significant unavoidable impact**.

Impact 7-24: Cumulative (2020) With and Without Project Impact on Westbound SR 84, County Line to University Avenue and University Avenue to Willow Road Segments--AM Peak Hour. Capacity analysis results indicate that the V/C ratio for these two SR 84 segments under Cumulative Conditions would be greater than 1.0 (with and without the proposed project). The project is expected to increase traffic volumes by more than one percent of the segments' capacity during the AM peak hour. This effect would represent a **significant cumulative impact**.

S

Mitigation 7-24. The project shall minimize impacts on these two SR 84 segments by implementing a transportation demand management (TDM) program, as described under *Mitigation 7-2*.

Applicant

SU

Full mitigation of this impact (i.e., to a less-than-significant level) would require the addition of another westbound through lane to both segments. The addition of another through travel lane, with a design capacity of 1,100 vehicles per lane per hour, would more than offset the addition of project traffic (the project is expected to add 57 trips to the segments). However, freeway widening is generally considered to be beyond the scope of a single development project--i.e., an infeasible mitigation requirement. Therefore, the effect of project traffic on these segments is considered to represent a **significant unavoidable impact**.

Impact 7-25: Cumulative (2020) With Project Impact on U.S. 101 Southbound Mixed-Flow

S

Mitigation 7-25. The project shall minimize impacts on this freeway segment by

Applicant

SU

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

Lanes, SR 92 to Whipple Road Segment--PM Peak Hour. Capacity analysis results indicate that the V/C ratio for southbound mixed-flow (i.e., non-HOV) lanes along this freeway segment under Cumulative Conditions would be less than 1.0 without the proposed project. The project is expected to increase the V/C ratio to more than 1.0. The project is also expected to increase traffic volumes by more than one percent of the freeway segment's capacity during the PM peak hour. This effect would represent a **significant cumulative impact**.

implementing a transportation demand management (TDM) program, as described under *Mitigation 7-2*.

Full mitigation of this impact (i.e., to a less-than-significant level) would require the addition of another southbound through lane to the freeway segment. The addition of another through travel lane, with a capacity of 2,300 vehicles per lane per hour, would more than offset the addition of project traffic (the project is expected to add 102 trips to this freeway segment). However, freeway widening is generally considered to be beyond the scope of a single development project--i.e., an infeasible mitigation requirement. Therefore, the effect of project traffic on this freeway segment is considered to represent a **significant unavoidable impact**.

Impact 7-26: Cumulative (2020) With and Without Project Impact on U.S. 101 Southbound Mixed-Flow Lanes, Whipple Avenue to Woodside Road and Woodside Road to Marsh Road Segments--PM Peak Hour. Capacity analysis results indicate that the V/C ratio for southbound mixed-flow (i.e., non-HOV) lanes along these two freeway segments under Cumulative Conditions would be greater than 1.0 (with and without the proposed project).

S

Mitigation 7-26. The project shall minimize impacts on these freeway segments by implementing a transportation demand management (TDM) program, as described under *Mitigation 7-2*.

Applicant

SU

Full mitigation of this impact (i.e., to a less-than-significant level) would require the addition of another southbound through lane to each freeway segment. The addition of another through travel

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

The project is expected to increase volumes by more than one percent of the segments' capacity during the PM peak hour. This effect would represent a **significant cumulative impact**.

lane, with a capacity of 2,300 vehicles per lane per hour, would more than offset the addition of project traffic (the project is expected to add 127 trips and 149 trips to each freeway segment). However, freeway widening is generally considered to be beyond the scope of a single development project--i.e., an infeasible mitigation requirement. Therefore, the effect of project traffic on this freeway segment is considered to represent a **significant unavoidable impact**.

Impact 7-27: Cumulative (2020) With and Without Project Impact on Eastbound SR 84, Willow Road to University Avenue and University Avenue to the County Line Segments--PM Peak Hour. Capacity results analysis indicate that the V/C ratio for these two SR 84 segments under Cumulative Conditions would be greater than 1.0 (with and without the proposed project). The project is expected to increase traffic volumes by more than one percent of the segments' capacity during the PM peak hour. This effect would represent a **significant cumulative impact**.

S

Mitigation 7-27. The project shall minimize impacts on these SR 84 segments by implementing a transportation demand management (TDM) program, as described under *Mitigation 7-2*.

Applicant

SU

Full mitigation of this impact (i.e., to less-than-significant level) would require the addition of another eastbound through lane to both segments. The addition of another through travel lane, with a capacity of 1,100 vehicles per lane per hour, would more than offset the addition of project traffic (the project is expected to add 58 trips to the segments). However, freeway widening is generally considered to be beyond the scope of a single development project--i.e., an infeasible mitigation requirement. Therefore, the effect of project traffic on these segments is

- S = Significant
- LS = Less than significant
- SU = Significant unavoidable impact
- NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

considered to represent a **significant unavoidable impact**.

BIOLOGICAL RESOURCES

Impact 8-1: Impacts on Steelhead and Chinook Salmon. The proposed project would fill approximately 11.54 acres of estuarine habitat for the steelhead, a federally listed threatened species, chinook salmon-California Coastal ESU, also a federally listed threatened species, and chinook salmon-Central Valley fall/late fall run, a federally listed species of concern and state-listed species of special concern. Construction activities could also result in increased water turbidity, contaminant release, noise, and underwater shock waves within this habitat. These possible effects represent a **potentially significant impact**.

S

Mitigation 8-1. The applicant shall:
 (1) coordinate with the NMFS and CDFG on steelhead and chinook salmon issues; and
 (2) formulate and implement a *Habitat Mitigation and Monitoring Plan* (HMMP) for these species to the satisfaction of the NMFS and CDFG. The HMMP should include, but not be limited to, the following provisions:

Applicant

LS

- The construction contractor shall use a silt curtain around the area where dredging activities are likely to release sediment into Redwood Creek or Smith Slough and where construction activities are directly adjacent to estuarine habitat.
- The water shall be monitored to verify that the silt curtains contain turbidity to no more than 10 percent above ambient levels.
- The contractor shall minimize dust through regular watering of bare ground and use Best Management Practices to prevent construction debris and loose soil from falling

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
City of Redwood City
March 5, 2003
Impacts

Potential
Significance
Without
Mitigation

Mitigation Measures

Mitigation
Responsibility

Potential
Significance
With
Mitigation

into the Bay.

- The dredging contractor (i.e., for the flushing channel) shall continuously monitor the quality of sediments being mobilized, and Best Management Practices will be employed to prevent the re-suspension of contaminants in the Bay.
- The dredging procedure (i.e., for the flushing channel) shall involve the use of a suction dredge that minimally disturbs adjacent sediments. Clamshell dredging shall not be used unless all the sediments have been previously determined to be free of pesticides, heavy metals, PCPs, and fossil fuel by-products.
- In order to minimize hydroacoustic shockwaves from pile driving, the contractor shall use a vibratory hammer to drive sheet pile and piles in the marinas. In the event that a percussive pile-driving hammer is required for driving piles in the water, the contractor shall integrate an approved bubble curtain into the pile-driving system.

Also, implement *Mitigation 8-5* for the loss of approximately 11.54 acres of estuarine habitat.

S = Significant
LS = Less than significant
SU = Significant unavoidable impact
NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

The City of Redwood City shall not issue a grading permit for the project until the steelhead and chinook salmon issues are resolved to the satisfaction of the NMFS and CDFG. Copies of written correspondence between NMFS and CDFG and the applicant shall be submitted to the City prior to issuance of a grading permit.

Implementation of these measures would reduce these impacts to a ***less-than-significant level***.

Impact 8-2: Impacts on Essential Fish Habitat.

The proposed project would fill approximately 11.54 acres of estuarine Essential Fish Habitat. Impacts on federally managed species protected under Essential Fish Habitat regulations are similar to impacts on salmon and steelhead. Filling the bottom of the Bay would result in a loss of essential benthic habitat for many species of rockfish, flat fish, sharks, and rays. Filling the water column would adversely impact several federally managed species, including Pacific sardine and the northern anchovy. Construction activities could also result in increased water turbidity, contaminant release, noise, and underwater shock waves. These possible effects represent a ***potentially significant impact***.

S

Mitigation 8-2. The applicant shall implement *Mitigation 8-1* above with respect to Essential Fish Habitat. This measure would reduce the project's impact on Essential Fish Habitat to a ***less-than-significant level***.

Applicant

LS

S = Significant

LS = Less than significant

SU = Significant unavoidable impact

NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

Impact 8-3: Impacts on the California Clapper Rail. Project construction would result in direct long-term loss of intertidal wetland along Redwood Creek and Smith Slough sufficient to support incidental foraging by the California clapper rail, a federal- and state-listed endangered species. Noise from project construction and project disturbance of intertidal habitat could interfere with the ability of the clapper rails to detect predators. Impacts on clapper rails from noise associated with pile driving, heavy construction, and earthmoving equipment in particular are potentially significant. These possible effects represent a **potentially significant impact**.

S

Mitigation 8-3. The applicant shall:
 (1) coordinate with the USFWS and CDFG on California clapper rail issues; and (2) formulate and implement a *Habitat Mitigation and Monitoring Plan* (HMMP) for this potentially affected species to the satisfaction of the USFWS and CDFG. The HMMP should stipulate avoidance of construction operations during the California clapper rail breeding season. To determine presence of breeding special-status species in the project vicinity, USFWS-approved clapper rail surveys should be conducted during the breeding season, prior to construction. If breeding surveys detect clapper rail or other special-status bird species' breeding territories in adjacent wetlands, the USFWS and CDFG shall be consulted to determine if the distance of the territory from the construction activity is a suitable buffer requiring no further action. If breeding territories are found to be potentially affected by construction-related noise, all construction activities should be prohibited within the buffer area as specified by the USFWS ad/or CDFG.

Applicant

LS

The City of Redwood City shall not issue a grading permit for the project until the California clapper rail issues are resolved to the satisfaction of the USFWS and CDFG. Copies of written correspondence between USFWS and CDFG

- S = Significant
- LS = Less than significant
- SU = Significant unavoidable impact
- NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

and the applicant shall be submitted to the City prior to issuance of a grading permit. Implementation of these measures would reduce this potential impact to a ***less-than-significant level***.

Impact 8-4: General Construction Noise Impacts on Wildlife. Foraging and reproductive activities of wildlife in the adjacent sensitive habitat areas, including habitat of special-status species, could be disrupted by project construction activity and noise. Noise impacts resulting from dredging, pile driving, and other construction activities could disrupt reproductive success if conducted during the breeding and nesting seasons of California clapper rail and California least tern, each federal- and state-listed endangered species; Western snowy plover, a federally listed threatened species and state-listed species of special concern; California black rail, a federally listed species of concern and state-listed threatened and fully protected species; northern harrier, a state-listed species of special concern; and the short-eared owl, saltmarsh common yellowthroat, and Alameda song sparrow, which are each federally listed species of concern and state-listed species of special concern. These possible effects represent a ***potentially significant impact***.

S

Mitigation 8-4. The applicant shall: (1) coordinate with the USFWS and CDFG on noise issues related to special-status species in the adjacent sensitive habitats; and (2) formulate and implement an associated *Habitat Mitigation and Monitoring Plan* (HMMP) for these potentially affected species to the satisfaction of the USFWS and CDFG. The HMMP shall stipulate avoidance of construction operations during special-status species' breeding season. To determine the presence of breeding special-status species in the project vicinity, USFWS and CDFG approved special-status species surveys shall be conducted during the breeding season, prior to construction. If breeding surveys detect special status species' breeding territories in adjacent wetlands, the USFWS and CDFG shall be consulted to determine if the distance of the territory from the construction activity is a suitable buffer requiring no further action. If breeding territories are found to be potentially impacted by construction-related noise, all construction activities should be prohibited within the buffer

Applicant

LS

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

area as specified by the USFWS and/or CDFG.

The City of Redwood City shall not issue a grading permit for the project until the noise issues are resolved to the satisfaction of the USFWS and CDFG. Copies of written correspondence between USFWS and CDFG and the applicant shall be submitted to the City prior to issuance of a grading permit.

Implementation of these measures would reduce this potential impact to a ***less-than-significant level***.

Impact 8-5: Project-Related Loss of Estuarine Navigable Waters and Other Waters of the U.S. The proposed project would fill approximately 11.54 acres of "navigable and other waters of the United States" that are within the jurisdiction of the Corps of Engineers under section 10 of the Rivers and Harbors Act ("navigable waters") and section 404 of the Clean Water Act ("other waters of the U.S."), including approximately 10.30 acres within the Peninsula Marina property and 1.24 acres within the Pete's Harbor property. This would represent a ***potentially significant impact***.

S

Mitigation 8-5. The applicant shall: (1) obtain Section 10 and 404 permits from the Army Corps of Engineers (Corps); (2) obtain a Section 401 Clean Water Certification or Waiver from the Regional Water Quality Control Board (RWQCB); and, if required, (3) obtain a 1603 Streambed Alteration Agreement with the California Department of Fish and Game (CDFG). The applicant shall also: (1) coordinate with the NMFS, USFWS, and CDFG on steelhead and chinook salmon issues (see *Mitigation 8-1*); (2) coordinate with NMFS on Essential Fish Habitat issues (see *Mitigation 8-2*); and (3) formulate and implement a *Habitat Mitigation and Monitoring Plan* (HMMP) for these potentially

Applicant

LS

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

affected special-status estuarine species to the satisfaction of the Corps, NMFS, USFWS, CDFG, and RWQCB. The HMMP should include a compensatory mitigation plan to replace estuarine, navigable, and other waters of the U.S. filled by the project. Such an HMMP would be required by the Corps and USFWS as a condition of the Section 404 permit, by the RWQCB as a condition of Section 401 Clean Water Certification or Waiver, and by the CDFG as a condition of a Section 1603 Streambed Alteration Agreement (if required).

The City of Redwood City shall not issue a grading permit for the project until the permits have been obtained by the applicant and the associated mitigation and monitoring plans are approved by the responsible agencies. Implementation of these measures would reduce this potential impact to a **less-than-significant level**.

Impact 8-6: Project-Related Loss of Saline Emergent Wetlands. The proposed project may fill saline emergent wetlands. Loss of saline emergent wetlands would represent a **potentially significant impact**.

S

Mitigation 8-6. The applicant shall: (1) obtain a Section 404 permit from the Army Corps of Engineers; (2) obtain a Section 401 Clean Water Certification or Waiver from the Regional Water Quality Control Board (RWQCB); and (3) obtain a permit from BCDC. As required by these agencies, the applicant shall prepare and

Applicant

LS

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

implement an HMMP that includes a compensatory mitigation plan to replace saline emergent waters of the U.S. filled by the project. Such an HMMP would be required by the Corps of Engineers as a condition of the Section 404 permit and the by the RWQCB as a condition of Section 401 Clean Water Certification or Waiver.

The City of Redwood City shall not issue a grading permit for the project until the permits have been obtained by the applicant and the associated mitigation and monitoring plans are approved by the responsible agencies. Implementation of these measures would reduce this potential impact to a **less-than-significant level**.

Impact 8-7: Project-Related Loss of Fresh Emergent Wetlands. The proposed project would fill fresh emergent wetlands. Loss of fresh emergent wetlands would represent a **potentially significant impact**.

S

Mitigation 8-7. The applicant shall implement *Mitigation 8-6*. The City of Redwood City shall not issue a grading permit for the project until the permits have been obtained by the applicant and the associated mitigation and monitoring plans have been approved by the responsible agencies. Implementation of these measures would reduce this potential impact to a **less-than-significant level**.

Applicant

LS

Impact 8-8: Project-Related Bird Collisions. The project proposes to construct up to thirteen

S

Mitigation 8-8. Although bird collisions are a **significant unavoidable impact**, collisions may

Applicant, City

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

21- to 23-story towers, and additional office space and low-rise flats ranging from four to nine stories. Such structures are likely to cause substantial bird collision mortality due to lighting and window hazards. These collisions are inevitable and constitute a **significant unavoidable impact**.

be reduced by adopting, as part of the project's architectural review process, a lighting policy that strives for minimal exterior night-lighting, requires adoption of low-intensity exterior lighting, uses cutoff lights and shielding techniques that focus exterior light downward, and includes perimeter lights that are timed by project management to shut off automatically when not in use.

SUImpact 8-9: Project-Related General Outdoor Lighting Impacts on Biological Resources. The project would result in additional lighting at a close distance to sensitive wetland habitats. Outdoor lighting from the proposed project may adversely affect nocturnal, roosting, and nesting birds, and disrupt natural diurnal rhythms of a wide range of animals and plants. These possible effects represent a **potentially significant impact**.

S

Mitigation 8-9. Implementation of *Mitigation 8-8* would reduce this potential impact to a **less-than-significant level**.

Applicant, City

LS

Impact 8-10: Project-Related Introduction of Invasive, Non-Native Plants. Since the project site is adjacent to Middle Bair Island, a federally managed wildlife reserve, invasive non-native plant species could have an adverse on native vegetation and special-status wildlife in the area. Special-status wildlife species known from the area, such as California clapper rail and salt marsh harvest mouse, are dependent on native

S

Mitigation 8-10. Eliminating the invasive, non-native species listed above from the landscape plan would reduce this identified potential impact of using non-native species to a **less-than-significant level**.

Applicant

LS

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation Mitigation Measures

Potential
 Significance
 With
 Mitigation
 Mitigation
 Responsibility

salt marsh vegetation and adjacent upland areas. Displacement of native vegetation by invasive non-native species would adversely impact habitat for these and other special-status wildlife species. In a preliminary landscape plan supplied by the project architect, the project proposes to landscape the site with non-native plants that include seven species that have the potential and one species that is known to vigorously invade and displace native plants. Use of these plants in landscaping would therefore present a ***potentially significant impact***.

HYDROLOGY AND WATER QUALITY

Impact 9-1: Temporary Soil Erosion Increase and Sedimentation Impacts During Project Construction. Project filling, grading, and removal of vegetative cover would cause disturbance of watershed lands and would expose large areas of bared soil surface to erosion with the potential for attendant downstream sedimentation in both the on-site marinas and Redwood Creek. This is considered a ***potentially significant impact***.

S

Mitigation 9-1: In accordance with National Pollution Discharge Elimination System (NPDES) regulations, require the project applicant to file a Notice of Intent with the State Water Resources Control Board (SWRCB), Division of Water Quality. The filing shall include a description of erosion control and stormwater treatment measures to be implemented during (including *Start at the Source* measures) and following project construction, as well as a schedule for monitoring of performance. These measures are referred to as Best Management Practices (BMPs) for the control of point and non-point source pollutants in stormwater and constitute the

Applicant

LS

- S = Significant
- LS = Less than significant
- SU = Significant unavoidable impact
- NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

Stormwater Pollution Prevention Plan (SWPPP). Project grading shall not commence (no grading permit shall be issued by the City) until an NPDES permit is issued, demonstrating that project erosion control and stormwater treatment measures, including the project SWPPP, meet SWRCB requirements. The project shall be required to fully implement the erosion control and other water quality measures cited in the SWPPP and to monitor these measures during a specified period following completion of project construction. The RWQCB would be responsible for inspecting these measures, typically on an annual basis, while the sponsor would be responsible for implementing any remedial measures if the Board indicated that site stormwater quality objectives were not being met. The City Engineering Division would also be responsible for post-construction inspection of all measures that would eventually become part of the maintained infrastructure of the project, including source control and water quality treatment measures. Implementation of these measures would reduce the construction-related soil erosion and sedimentation impacts to a **less-than-significant level**.

Impact 9-2: Increased Stormwater Contaminant Loading--Potential Violation of

S

Mitigation 9-2. Apply the following site-appropriate Best Management Practices (BMPs)

Applicant

LS

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
City of Redwood City
March 5, 2003
Impacts

Potential
Significance
Without
Mitigation

Mitigation Measures

Mitigation
Responsibility

Potential
Significance
With
Mitigation

Water Quality Standards. The proposed high-density residential/office, reconfigured marina development, and related landscaping on the project site would result in incremental increases in the stormwater contaminant loading for some heavy metals, as well as oil and grease and pesticide/herbicide residues. Project contaminant input could further impair the already impaired quality of stormwater discharged to Redwood Creek. This possible project effect is considered a **potentially significant impact**.

or their equivalents as part of the project Stormwater Pollution Prevention Plan (SWPPP), including measures required to comply with the proposed, new C.3 regulations to be adopted as part of the San Mateo Countywide Stormwater Pollution Prevention Program (STOPPP), in order to comply with the requirements of the NPDES General Permit and imminent updating of the Municipal Stormwater Permit for Redwood City:

- Integrate start-at-the-source measures for stormwater control and treatment into the project stormwater drainage design. Such measures could include pervious parking lots, infiltration basins, vegetated (grass) swales ("bioswales"), or other measures designed to minimize stormwater runoff (through maximization of local infiltration and detention storage), settle out fine sediments, and filter contaminants. Oil/grease traps, sand filters, or similar in-line filtration systems for storm drain systems should also be considered. Such traps, filters, or separators must be accompanied by a clean out/maintenance program that ensures acceptable trap efficiencies, specifies appropriate disposal procedures, and reduces the risk that the traps become sinks for pollutants.

S = Significant

LS = Less than significant

SU = Significant unavoidable impact

NA = Not applicable

Marina Shores Village Project
City of Redwood City
March 5, 2003
Impacts

Potential
Significance
Without
Mitigation

Mitigation Measures

Mitigation
Responsibility

Potential
Significance
With
Mitigation

- Institute a regular schedule of street and parking lot sweeping. The frequency of cleaning shall be higher (twice monthly) during the winter rainy season, yet maintained year-round. Regular cleaning of paved surfaces reduce the “first flush” phenomenon wherein the highest concentration of contaminants are flushed off the surfaces during the early portion of a runoff event. Cleaning practices may have to be modified if porous pavement systems are employed.
- Where bioswales are incorporated in site development plans to convey stormwater from paved surfaces to Redwood Creek or the marinas, implement design guidelines described in *Start at the Source: Design Guidance for Stormwater Quality Protection*, including the following:
 -
 -
- Revegetate all disturbed areas at the onset (October) of the first winter rainy season following the completion of construction, and

S = Significant
LS = Less than significant
SU = Significant unavoidable impact
NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

at a similar time during the next one to two years as required to fully revegetate the site.

Use of an erosion control grass and forb mixture, favoring native species, is best suited to this task. In addition, install biodegradable surface erosion protection (e.g., natural mulch, jute netting, erosion control blankets, punched straw) to reduce the erosive energy of incoming raindrops for at least the first winter season following construction. If project construction spans two consecutive winter seasons, these erosion protection measures shall be implemented at the beginning of each winter season, unless there is successful establishment of vegetal cover after the first year.

- Install silt fencing along the construction perimeter prior to the start of construction, and keep the fencing in-place until construction is completed and erosion-control winterization measures are implemented.
- Prepare and implement an irrigation scheduling and chemical management plan governing the application of irrigation water and chemical amendments to landscaped

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

areas adjacent to buildings and within or adjacent to parking lot facilities. Components of such a plan likely would include an irrigation schedule linked to soil moisture levels or related variables (such as temperature, humidity, and wind speed). Specific chemical inputs proposed for application to vegetation shall be among those tested and cleared by the USEPA. Frequency and scheduling of these chemical inputs also shall be indicated based on site-specific characteristics (such as soil and vegetative cover and rates of uptake) and the acknowledged sensitivity of downstream receiving waters.

Implementation of these measures would reduce the water quality impacts to a ***less-than-significant level***.

Impact 9-3: Temporary Impacts from Proposed Flushing Channel Construction (Dredging) and Marina Filling Operations. Dredging of the flushing channel and the initial installation of sheet piling to facilitate partial filling of Peninsula Marina and Pete's Inner Harbor would disturb marina bottom sediments and would create temporary water quality impacts, resulting in a ***potentially significant impact***.

S

Mitigation 9-3. Require the following mitigation measures to reduce water quality impacts associated with proposed project flushing channel dredging and marina filling operations:

Applicant

LS

- As a condition of project approval, require the applicant to apply to the U.S. Corps of Engineers (Corps) for an Individual Department of Army Fill Permit, and abide by

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
City of Redwood City
March 5, 2003
Impacts

Potential
Significance
Without
Mitigation

Mitigation Measures

Mitigation
Responsibility

Potential
Significance
With
Mitigation

any conditions imposed by the Corps and its sister agencies of the Dredged Materials Management Office (DMMO) pertaining to the disposal of dredged sediments.

- Contract with a water quality and sediment testing laboratory certified by the State of California to conduct an updated testing of marina and flushing channel sediments. Flushing channel sediments will have to be drawn as core logs during a pre-project, pre-excavation testing program. Results of the updated testing shall be submitted along with the Department of Army Permit application to the Corps, the Fill Permit from BCDC, and the 401 Water Quality Certification request to the RWQCB.
- Implement the dredging operations utilizing a suction dredge that minimally disturbs adjacent sediments (see *Mitigation 8-1* herein). Confer with the Corps to determine the appropriate method for the site conditions (e.g., sediment characteristics) and the least environmentally damaging method for sheet pile/bulkhead installation and worksite segregation from Bay waters.

Implementation of these measures would reduce

S = Significant
LS = Less than significant
SU = Significant unavoidable impact
NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

the impacts of flushing channel dredging and marina filling operations to a ***less-than-significant level***.

Impact 9-4: Project Impacts on Marina and Creek Sedimentation and Associated Creek/Bay Water Quality Impacts. Project implementation, including an approximately 11.54-acre reduction in marina open water area, would reduce the tidal prism (the water volume exchanged between higher high and lower low waters) which functions to scour tidal sediments from the marina entrances and from the lower reaches of Redwood Creek. Consequently, rates of siltation within these water bodies would increase, although to an uncertain degree. Thus, future dredging and spoils disposal could be required at higher than existing frequencies, resulting in more frequent water quality disturbances and higher costs to the City. This constitutes a ***potentially significant impact***.

S

Mitigation 9-4. Require the following mitigation measures to reduce potential siltation impacts on the marina inlet channels and the project reach of Redwood Creek (extending to the Smith Slough confluence), corresponding dredging needs, and associated water quality impacts:

Applicant

LS

- Require the applicant to conduct additional hydraulic analyses to verify to the satisfaction of the City Engineer that the marina inlets will operate at close to a self-scouring condition. If the analyses do not verify probable maintenance of such a condition, the project design shall be adjusted accordingly.
- Require the applicant to conduct additional analysis utilizing data on the hydraulic geometry of tidal marshes to determine the effect of a reduction in the Redwood Creek tidal prism on the channel geometry (e.g., depth, cross-sectional area) of Redwood Creek through the project reach. If the computations indicate loss of effective

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

depths and channel cross-sections, the applicant shall determine the increased volume and frequency of dredging required to maintain navigability in Redwood Creek. The applicant and the City shall then negotiate to determine an equitable fee structure for project residents to compensate for the additional costs of channel maintenance.

Implementation of the above mitigation measures would reduce project impacts on siltation rates and dredging frequencies and costs to a ***less-than-significant level***.

INFRASTRUCTURE AND PUBLIC SERVICES

Impact 10-1: Project-Related and Cumulative Municipal Water Service Demand. The project would increase the demand for municipal water service in the project vicinity. Preliminary estimates indicate that the project could generate a demand for approximately 3,250 to 3,400 gallons per minute of emergency fire flow, up to 744,000 gallons of total fire flow volume, 1,536,000 gallons of emergency water storage on- or off-site, and a net increase of 430,000 gallons of domestic water demand (approximately 1.3 acre-feet) per average day, or 482 acre-feet

S

Mitigation 10-1. As required by State SB 221, prior to City approval of any tentative map or development agreement for the proposed project, the City of Redwood City Public Works Services Department shall undertake a *subsequent water supply analysis*, which shall describe the citywide water supply situation at that future time, reflecting progress on current City studies and plans for finding opportunities for water transfers, expanding its recycled water program, and implementing additional “best management practices” (BMPs) for water conservation. As

City, Applicant

LS

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project City of Redwood City March 5, 2003 Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
---	--	---------------------	------------------------------	---

per year. Redwood City already exceeds its contracted allocation of water from the San Francisco Public Utilities Commission (SFPUC) by approximately 1,000 acre-feet annually, and is predicted to exceed its allocation by approximately 2,700 acre-feet annually by 2009. As required by California SB 610, the Redwood City City Council approved the Water Supply Assessment (WSA) for the Marina Shores Village project on August 26, 2002. That assessment approval pertained to the adequacy and reliability of the Assessment itself and was not intended as an approval or disapproval of the Marina Shores Village project itself. The WSA for the proposed project has determined that the City of Redwood City does not currently have sufficient water supply to meet the projected water demands of the proposed project together with those of its existing customers and the demands of other planned development. Therefore, the anticipated project-related and cumulative demands for water service would represent a **potentially significant project and cumulative impact**.

required by SB 221, no tentative map or development agreement shall be approved until a *water supply analysis* concludes that sufficient water will be available to serve the proposed project needs.

The project applicant shall also be required to comply with all applicable current and future City of Redwood City water demand performance standards, including standards included in the City of Redwood City Urban Water Management Plan, the City's recycled water project, and the City's water conservation program.

Minus substantial evidence that these measures would mitigate this impact--i.e., would lead to the identification and realization of an adequate additional water source--the effectiveness of this mitigation measure is unknown at this time. Therefore, until an achievable water supply source is identified, this impact is considered to be a **significant unavoidable impact** (i.e., would require City adoption of a Statement of Overriding Considerations).

Impact 10-2: Project-Related and Cumulative Impacts on Sewage Treatment and Transmission Capacity. The project would increase sewage generation in the project vicinity.

S

Mitigation 10-2. Prior to City approval of any tentative map or development agreement for the proposed project, the City of Redwood City shall purchase from the SBSA the dry weather

City, Applicant

LS

- S = Significant
- LS = Less than significant
- SU = Significant unavoidable impact
- NA = Not applicable

Marina Shores Village Project
City of Redwood City
March 5, 2003
Impacts

Potential
Significance
Without
Mitigation

Mitigation Measures

Mitigation
Responsibility

Potential
Significance
With
Mitigation

Preliminary estimates indicate that the project could generate a total of approximately 399,000 gallons of sewage per day, for a net increase of approximately 317,000 gallons per day. Redwood City already uses all of its allocated capacity from the South Bayside System Authority (SBSA) treatment plant, but possesses an option to purchase an additional 2.1 million gallons per day (mgd) of dry weather treatment capacity. Because the SBSA treatment capacity allocation to Redwood City is already being exceeded, the current allocation is inadequate to serve the project's projected demand in addition to existing SBSA commitments.

In recent years, sewage flow into the SBSA sewage collection system from Redwood City has occasionally exceeded the current peak wet weather flow capacity right (exclusive of Redwood Shores) of 25.9 mgd. Since 1994-95, the City has exceeded its allocated capacity nine times during the winter. Provision of sewer service to the project site would require modifications to the existing sewer system from the project site to the SBSA treatment plant in order to avoid any further contribution to this existing condition.

As identified by the City of Redwood City

treatment capacity necessary to accommodate the projected net increase in sewage generated by the proposed project. The project's ultimate treatment capacity requirement shall be calculated in the final permitting stage. The project applicant shall reimburse the City for all costs associated with the purchase of this treatment capacity (e.g., the capacity option itself, and associated administrative costs), the procedural details of which shall be included in a development agreement for the project.

In order to mitigate the limited transmission capacity from the project site to the SBSA treatment plant, the project applicant will be required to upgrade the influent lifting station (ILS) at the treatment plant and upgrade the treatment plant itself as necessary, *as well as* implement one of the following design solutions, subject to approval by the City of Redwood City Engineering and Construction Department:

(1) Pump Directly to the SBSA Treatment Plant:
(a) install a new gravity sewer line from the project site to a new pump station at Bair Island Road, and (b) install new sewer lines from the new pump station to the SBSA treatment plant;

or

S = Significant
LS = Less than significant
SU = Significant unavoidable impact
NA = Not applicable

Marina Shores Village Project
City of Redwood City
March 5, 2003
Impacts

Potential
Significance
Without
Mitigation Mitigation Measures

Potential
Significance
With
Mitigation
Mitigation
Responsibility

Engineering and Construction Department, "The main issue of concern is the limited delivering capacity of [the] regional transmission system itself (i.e., pump stations and large force mains delivering member agencies' sewer flows to the treatment plant)....According to the SBSA, the City has reached its 25.9 mgd peak wet weather flow (PWWF) capacity rights for the main area of Redwood City. The problem is how to accommodate the additional PWWF from this development, which is estimated as the project net peak off-hour [i.e., residential] flow of 1.7 mgd...."

Because the SBSA treatment capacity allocation to Redwood City is already being exceeded, and because the limited capacity of the sewage transmission system to the SBSA treatment plant would require modifications to the existing sewer system, the project-related and cumulative impacts on sewage treatment and transmission capacity are considered a **potentially significant project and cumulative impact**

(2) *Pump to the SBSA 48-Inch Sewer System Force Main (SSFm):* (a) install a new gravity sewer line from the project site to a new pump station at Bair Island Road, (b) install new sewer lines from the new pump station to the existing 48-inch SSFM, and (c) complete minor modifications, if necessary, to the existing SBSA pump station at Maple Street;

or

(3) *Pump to the SBSA Pump Station at Maple Street:* (a) install a new gravity sewer line from the project site to a new pump station at Bair Island Road, (b) install new sewer lines from the new pump station to the existing SBSA pump station at Maple Street, and (c) upgrade the pump station at Maple Street.

A detailed discussion of the design alternatives and potential design solutions is included in the *Marina Shores Village Sewer Report*, available for review at the City of Redwood City Community Development Services Department, City Hall, 1017 Middlefield Road. Prior to the final design for construction documents, performance of flow monitoring will be required during wet weather conditions and completion of modifications to the

S = Significant
LS = Less than significant
SU = Significant unavoidable impact
NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

sewer line will be required as necessary, subject to approval by the City of Redwood City Engineering and Construction Department.

Implementation of these measures, including any one of options (1), (2), or (3) above, would reduce the project and cumulative impact on sewage treatment and transmission capacity to a **less-than-significant level**.

Impact 10-3: Project-Related Increase in Police Service Demands. Buildout of the proposed project would increase demands for Redwood City Police Department services in the project vicinity. Project residents, businesses, and employees would generate additional calls for police assistance and the need for expanded police patrols in the area. It is estimated that up to approximately four (4) additional sworn officers and requisite training, support staff, facilities, and equipment would be necessary at project buildout to adequately serve the project. Without corresponding incremental increases in City police service provisions, police service levels and response times could deteriorate, representing a **potentially significant impact**.

S

Mitigation 10-3. The Redwood City Police Department shall review the 1997 staffing survey and associated staffing cap policy in light of the proposed Marina Shores Village project and other potential nearby development types and levels (e.g., Syufy site) not fully anticipated in 1997. If necessary, the staffing cap of 100 sworn officers shall be raised. If the staffing cap is raised, the City shall use property tax revenue flow increases from the project to the City's general fund to annually fund and employ a minimum of four (4) additional sworn officers and requisite training, support staff, facilities, and equipment, adequately phased over the project buildout period (currently estimated at ten to 15 years). For each City-approved project development phase, the City shall withhold approval of the project Certificates of Occupancy if it is determined that adequate police protection

City, Applicant

LS

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

cannot be provided and normal City service standards cannot be met by the time of occupancy. In addition, project site development plans shall be subject to review by the Redwood City Police Department to identify specific design measures (e.g., street and parking area lighting, placement of open space areas, etc.) that may be warranted to reduce the potential for criminal activity. Implementation of these measures would reduce the impact of project-related increases in police service demands to a **less-than-significant level**.

Impact 10-4: Emergency Response and Evacuation Impacts. Project-related traffic would create additional traffic congestion on Bair Island Road, East Bayshore Road, and other local roadways, possibly delaying emergency response and limiting the Police Department's ability to evacuate the project vicinity safely during an emergency or major disaster. These possible project effects on emergency response and evacuation in the project vicinity would represent a **potentially significant impact**.

S

Mitigation 10-4. Implement mitigation measures identified in chapter 7 (Transportation and Circulation) of this EIR to reduce project-related traffic impacts on Bair Island Road, East Bayshore Road, and other local roads to less-than-significant levels. In addition, require City review and approval of project-proposed emergency access provisions prior to tentative subdivision map approval. Implementation of these measures would reduce project impacts on emergency response and evacuation to a **less-than-significant level**.

Applicant, City

LS

Impact 10-5: Cumulative Demands for Police Services. Buildout of the project in combination with other anticipated cumulative (pending,

S

Mitigation 10-5. Implement *Mitigation 10-3*. This measure would reduce the project contribution to this cumulative impact to a **less-than-significant**

City, Applicant

LS

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation Mitigation Measures

Potential
 Significance
 With
 Mitigation
 Mitigation
 Responsibility

recently approved, or recently constructed) residential development in the city by the year 2015, would increase the demand for police services, including an estimated need for 20 additional sworn officers, and requisite training, support staff, facilities, and equipment. Without corresponding incremental increases in police service provisions, this effect would represent a ***potentially significant cumulative impact***.

level.

Impact 10-6: Project-Related and Cumulative Increases in Fire Protection and Emergency Medical Service Demands. Buildout of the proposed project, in combination with other anticipated cumulative (pending, recently approved, or recently constructed) residential development in the city by the year 2015, would increase demands for fire protection and emergency medical services provided by the Redwood City Fire Department (RCFD). The estimated 4,020 project residents (3,910 total net new residents) on the project site would require up to an estimated three (3) additional RCFD emergency personnel (captains, fire fighter/paramedics, and fire fighters), plus requisite training, support staff, facilities, and equipment. The estimated 17,472 net new residents associated with anticipated cumulative residential development in the city by 2015,

S

Mitigation 10-6. The City shall use property tax revenue flow increases from the project to the City's general fund to annually fund ongoing fire and emergency medical service needs generated by the project. In addition, to the extent necessary, the City should require individual development projects, including the Marina Shores Village project, to provide a fair share contribution toward provision of new staff facilities and equipment costs which exceed general fund capacity. The City shall withhold approval of the project Certificate of Occupancy if it is determined that adequate fire protection and emergency medical service cannot be provided and service standards cannot be met by the time of project occupancy. In addition, the project shall comply with RCFD standards applied to the project after City review of project plans. At this preliminary point, the RCFD has identified the following

City, Applicant

LS

- S = Significant
- LS = Less than significant
- SU = Significant unavoidable impact
- NA = Not applicable

Marina Shores Village Project
City of Redwood City
March 5, 2003
Impacts

Potential
Significance
Without
Mitigation

Mitigation Measures

Mitigation
Responsibility

Potential
Significance
With
Mitigation

including the proposed project would require up to an estimated 14 additional RCFD emergency personnel and requisite training, support staff, facilities, and equipment. Without corresponding incremental increases in RCFD provisions, response times and other service could deteriorate, representing a ***potentially significant project and cumulative impact***.

minimum requirements for design of the proposed project:

- All buildings more than 75 feet above the lowest level of RCFD vehicle access (classified "high-rise" buildings) shall have approved combination automatic fire sprinklers installed; a secondary on-site water supply, in addition to an approved primary water supply capable of supplying the required fire flow; a standby power-generator set; and two remotely located Fire Department connections.
- Fire hydrants shall be provided along required fire apparatus roads and adjacent public streets in conformance with the Uniform Building Code.
- On-site fire hydrants and mains capable of supplying the required fire flow (3,400 gallons per minute) shall be provided when any portion of a building or facility is in excess of 150 feet from a water supply on a public street.
- Fire apparatus access roads shall be provided when any portion of a building or facility is located more than 150 feet from fire

S = Significant

LS = Less than significant

SU = Significant unavoidable impact

NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

apparatus access as measured by an approved route around the exterior of the building or facility. No point in a structure shall be more than 150 feet away from an access point (such that fire hoses do not have to extend over 150 feet).

- Piers, wharves, or floats more than 250 feet from fire apparatus access shall be provided with an approved wet standpipe system.

The City may consider other alternatives to these requirements if it determines that such alternatives are feasible and such access will not jeopardize emergency response.

Implementation of these measures would reduce this impact to a **less-than-significant level**.

Impact 10-7: Emergency Access Impacts.

The project has the potential to conflict with RCFD standards for road design (e.g., 20 feet of unobstructed width and 45-foot/22-foot minimum outside and inside turning radii, respectively). Any potential conflicts with RCFD road design standards could cause emergency access deficiencies, representing a **potentially significant impact**.

S

Mitigation 10-7. As a condition of tentative subdivision map approval, require (a) City review and approval of the proposed tentative subdivision map, and (b) demonstration by the applicant that the project complies with all applicable City of Redwood City and RCFD road design and emergency access standards. The City may consider other alternatives to these requirements if it determines that such alternatives are feasible and such access will not

Applicant

LS

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

jeopardize emergency response. Implementation of this measure would reduce the impact to a ***less-than-significant level***.

Impact 10-8: Project Impacts on Parks and Recreation Services. The new residents resulting from the project's 1,930-unit residential component would increase the demand for local parks and recreational services. The City of Redwood City has not adopted a citywide parks *standard*; however, in order to maintain the City's current parks *ratio* of 1.7 acres of parkland per 1,000 residents, approximately 6.8 acres of additional improved parkland at a location or locations so as to be available for use by project residents would be required to serve the park needs of the projected 4,020 project residents (i.e., 3,910 net new residents); currently, no improved parkland exists within a convenient walking distance (e.g., less than 1/2-mile) of the project site. The proposed project includes approximately 15.8 acres of common landscape/hardscape open space to be shared between residents, visitors, and the general public. This open space would include public pedestrian and bicycle paths, public plazas and promenades, and a proposed link to the planned San Francisco Bay Trail extension (not yet designed). Also, the project's conceptual

S

Mitigation 10-8. Implement one of the following two alternative measures:

Applicant

LS

- (1) If the *Parks, Recreation and Community Services Department Strategic Plan* currently being formulated by the City is adopted prior to approval of the project-requested General Plan Amendment, Precise Plan, Design Review (Architectural) Permit, or subdivision map, requirements of the Strategic Plan shall apply to that approval as a condition of issuance; or
- (2) As part of Precise Plan formulation for the project, the City Community Development Services Department and Parks, Recreation and Community Services Department shall decide what, if any, credit would be applied toward meeting the project's parks and recreation needs, based on a total projected need of approximately 6.8 acres of additional improved parkland, through provision of common open space, the proposed adjacent community park (should development rights be granted by the USFWS), and the

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

landscape plans include a proposed approximately two-acre community park, but this adjacent off-site land is owned by the U.S. Fish and Wildlife Service (USFWS); the project applicant currently does not have development rights to this property.

proposed link to the planned San Francisco Bay Trail extension. If determined necessary by the City, the developer shall revise the project site plan to incorporate on-site parkland with amenities sufficient to serve the project residents.

Project effects on City parks and recreation services would represent a ***potentially significant impact***.

Implementation of either one of these mitigation measures would reduce project impacts on park facilities and recreational programs to a ***less-than-significant level***.

Impact 10-9: Solid Waste Diversion Impacts. Due to the tower design of a large portion of the project, the project has the potential to conflict with state-mandated requirements for 50 percent solid waste stream diversion if residents find the locations of recycling bins to be too distant or inconvenient. Site and project plans submitted at this time do not provide enough detail to determine if adequate provisions for recycling have been included in project design. If adequate recycling provisions are not ultimately included, the project could conflict with state-mandated waste stream reduction requirements, representing a ***potentially significant impact***.

S

Mitigation 10-9. The final project architectural design shall include chutes for recyclable materials immediately adjacent to the garbage chutes, or at another suitable location approved by the City, in the residential towers. Bins for storage of recyclables shall be provided for each residential tower unit. The City shall ensure that these provisions are included in project construction prior to issuance of a Certificate of Occupancy. Implementation of this measure would reduce the impact to a ***less-than-significant level***.

Applicant

LSSOILS AND GEOLOGY

- S = Significant
- LS = Less than significant
- SU = Significant unavoidable impact
- NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation Mitigation Measures

Potential
 Significance
 With
 Mitigation
 Mitigation
 Responsibility

Impact 11-1: Geotechnical Hazards Associated with Project Grading. The interaction of existing geotechnical conditions on the project site with the proposed grading, dredging, and surface modifications--and their combined effect on surface settlement, seismic hazards, and soil erosion--have the potential to result in significant adverse effects. The applicant's preliminary geotechnical investigation (Treadwell & Rollo, June 21, 2001) made an initial assessment of these conditions, but a design-level geotechnical investigation would be needed to adequately address all grading, dredging, and stabilization activities on the site. Without such a study--and without the associated supervision of an engineering geologist or geotechnical engineer during project grading, dredging, and construction--the safety and long-term stability of project improvements could not be assured. These possible geotechnical hazards represent a ***potentially significant impact***.

S

Mitigation 11-1: As recommended by the applicant-commissioned Treadwell & Rollo preliminary geotechnical investigation, require the applicant to retain a registered engineering geologist or geotechnical engineer to prepare *detailed, design-level geotechnical investigations* to guide the design of all project grading, dredging, and stabilization activities. The *detailed, design-level geotechnical investigations* shall be performed for each of the structures proposed for the project site. Subsurface conditions shall be explored and laboratory tests conducted on selected soil samples to establish strength parameters for foundation design and perimeter slope stability, and for corrosivity potential of the fill and Bay mud on foundation elements and buried utilities. Specific recommendations shall be developed for foundation support for each building, slab-on-grade floors, pavements, bulkheads, and slope inclinations for permanent slopes. The *detailed, design-level geotechnical investigations* shall include subsurface investigation to further identify the thickness and the consolidation characteristics of the Bay mud underlying the project site. Recommendations from the investigation shall be incorporated into project grading, dredging, and construction plans to the satisfaction of the City Engineer.

Applicant

LS

- S = Significant
- LS = Less than significant
- SU = Significant unavoidable impact
- NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

The *detailed, design-level investigations*, relevant recommendations, and all associated project grading, dredging, filling, and foundation plans, shall be subject to review and approval by an independent engineering geologist or geotechnical engineer retained by the City Engineer at applicant expense. In addition, the project civil engineer shall certify that all relevant provisions of the investigation have been incorporated into the grading, dredging, and construction plans. All earthwork and site preparation shall be performed under the direct supervision of a registered engineering geologist or geotechnical engineer. Implementation of these measures would reduce these potential impacts to a **less-than-significant level**.

Impact 11-2: Total and Differential Settlement.

The presence of weak, compressible Bay mud underlying the on-site fill is the most significant factor influencing the selection of a foundation system for the proposed project. The project's structural loads would be too great to be supported on conventional shallow foundations bottomed in fill or weak Bay mud. Shallow foundations would potentially experience excessive total and differential settlements. These possible effects represent a **potentially**

S

Mitigation 11-2: The *detailed, design-level geotechnical investigations* required under *Mitigation 11-1* shall include laboratory analyses of all dredged material and all materials proposed for use as fill. These analyses shall be sufficient to adequately estimate the rate and total amount of fill consolidation following compaction, and the resulting likelihood of differential settlement, especially in the areas of the reduced and reconfigured marinas. Design of all fills shall incorporate the results of these analyses to

Applicant

LS

- S = Significant
- LS = Less than significant
- SU = Significant unavoidable impact
- NA = Not applicable

Marina Shores Village Project
City of Redwood City
March 5, 2003
Impacts

Potential
Significance
Without
Mitigation

Mitigation Measures

Mitigation
Responsibility

Potential
Significance
With
Mitigation

significant impact.

minimize the destructive effects of future settlement, and the investigation shall set forth guidelines that address, at a minimum, the composition of fill materials, methods of fill placement, the required degree of fill compaction, and the layout of the subsurface drainage systems needed to adequately dewater the fill. In addition, all improvements to be constructed on top of or within fills shall be designed in accordance with the recommendations of the *detailed, design-level geotechnical investigations*.

Once a final grading plan has been prepared and building loads determined, estimates of potential settlements for the ground- and pile-supported structures, as well as for downdrag loads, shall be provided. Following completion of fills, settlement shall be monitored and improvement plans shall be modified as necessary.

The results of the *analyses of dredged material* shall be included in any request or application for disposal or reuse of dredged material.

All recommendations contained in and derived from the *detailed, design-level geotechnical investigations* shall be incorporated into the conditions of approval for each structure or construction phase, with implementation enforced by the City throughout the construction period. In

- S = Significant
- LS = Less than significant
- SU = Significant unavoidable impact
- NA = Not applicable

Marina Shores Village Project
City of Redwood City
March 5, 2003
Impacts

Potential
Significance
Without
Mitigation

Mitigation Measures

Mitigation
Responsibility

Potential
Significance
With
Mitigation

general, these recommendations are expected to include, but not be limited to, the following provisions:

- Support all project buildings on driven piles. At this preliminary point in the geotechnical analysis, Treadwell & Rollo recommends precast, prestressed concrete piles with 100-ton capacity (12 inch) and 125-ton capacity (14 inch) at lengths of 75 to 90 feet and 80 to 95 feet, respectively. Perform pile load tests to evaluate the ultimate capacity and required length of the piles.
- If settlements are found to be excessive, consider a surcharge program to reduce the effects of settlement, especially when filling in portions of the existing and former marinas.
- Design ground floor slabs to span between the pile caps and/or grade beams. Fill should not be relied upon for support.
- Use flexible connections for utilities entering buildings in order to protect against breakage caused by differential settlement.
- Hinge exterior slabs and ramps attached to

S = Significant

LS = Less than significant

SU = Significant unavoidable impact

NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

buildings in order to protect against breakage caused by differential settlement between the buildings and the outside ground.

- If settlements are found to be excessive, especially when filling in portions of the existing and former marinas, consider a *surcharge program* to reduce the effects of settlement. Surcharging consists of placing excess fill in areas where settlements are a concern and leaving it in place a sufficient amount of time to partially pre-consolidate the underlying compressible soil.

Implementation of these measures would reduce this potential impact to a ***less-than-significant level***.

Impact 11-3: Ground Shaking. Development of the proposed project would place new residences and businesses in a subregion that is expected to experience severe earthquake-induced ground shaking during the useful life of the project improvements. This ground movement could also cause differential settlement of poorly consolidated soils (including Bay mud) and induce ground failure within alluvial soils that are prone to liquefaction (including some layers

S

Mitigation 11-3: Require that the *detailed, design-level geotechnical investigations* recommended under *Mitigations 11-1* and *11-2* include analysis of project site seismic stability, evaluation of liquefaction potential, and soil response characteristics with respect to ground acceleration. The *detailed, design-level geotechnical investigations* should include the following:

Applicant

LS

S = Significant

LS = Less than significant

SU = Significant unavoidable impact

NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

below Bay mud). These possible responses to anticipated seismic activity represent a ***potentially significant impact***.

- Seismic stability analysis of the existing on-site soil, including fill, Bay mud, and underlying alluvial deposits;
- Evaluation of liquefaction potential through the performance of additional borings, cone penetration tests, and/or equivalent methods; and
- Determination of parcel-specific soil response characteristics and maximum credible ground acceleration for an earthquake recurrence interval specified by the City of Redwood City.

Recommendations from the investigations, including appropriate soil stabilization and foundation construction techniques, minimum setbacks around potentially unstable areas, and criteria for the compaction and treatment of on-site fills, shall be incorporated into the project grading and foundation plans. In general, these recommendations are expected to include, but not be limited to, the following provisions:

- Require all construction to comply with the Uniform Building Code (UBC, 1997) for Seismic Zone Factor 4 and Soil Profile Type S_E. Base all project designs on estimates of

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

peak and maximum repeatable earthquake-induced ground surface accelerations expected to occur on the project site, as calculated by the project geotechnical investigations.

- Slope or shore excavations in order to minimize ground movements. Typically, when excavation extends into Bay mud, 4:1 or flatter slopes are required to reduce movements.

Implementation of these measures--combined with conformance with standard Uniform Building Code, City of Redwood City, and other applicable regulations--would reduce the potential effects of ground shaking to a **less-than-significant level**.

Impact 11-4: Encountering Groundwater in Bay Mud During Excavation. Excavation for the proposed project's below-grade installations, such as utilities, might be difficult due to the high groundwater and relatively shallow depth of the weak Bay mud. This condition represents a **potentially significant impact**.

S

Mitigation 11-4: Require that the *detailed, design-level geotechnical investigations* recommended under *Mitigations 11-1 and 11-2* include analyses of groundwater and Bay mud within the limits of all foundation and utility construction. The analyses shall make recommendations regarding dewatering techniques, slope and shoring requirements for excavations, buffer zones for construction equipment near slope edges, the potential for requiring light grading equipment, subgrade

Applicant

LS

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
City of Redwood City
March 5, 2003
Impacts

Potential
Significance
Without
Mitigation

Mitigation Measures

Mitigation
Responsibility

Potential
Significance
With
Mitigation

remediation techniques, and the use of excavated fill. Project grading and construction plans shall incorporate the results and recommendations of these analyses. In general, these recommendations are expected to include, but not be limited to, the following provisions:

- Soil excavated from below the water level would be saturated and would require drying before it can be used as fill. Continuous dewatering of excavations might be required.
- The sides of the excavations should be sloped or shored to minimize ground movements; steep cuts are not possible in Bay mud unless shoring is used. Typically, when excavation extends into Bay mud, 4:1 or flatter slopes are required to reduce movements.
- Keep construction equipment away from the edges of slopes in order to reduce vibration degradation. Consider light grading equipment to avoid creating ruts in the subgrade, a situation that might require pumping. Remediate rutted subgrade areas by over-excavating the soft area to a depth of 18 to 24 inches, placing a geotextile at the bottom of the over-excavation, and

S = Significant

LS = Less than significant

SU = Significant unavoidable impact

NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

backfilling with suitable granular material.

- Do not use excavated Bay mud as fill beneath structures or pavement. When placing substantial fill directly on top of Bay mud, such as in the proposed reduced and reconfigured marinas, the fill might need to be placed in thin, uniformly thick lifts to prevent "mud waves" from forming. Mud waves can damage structural elements already installed, particularly piles and underground utilities.
- The project civil engineer shall certify that all relevant provisions of the *detailed, design-level geotechnical investigations* have been incorporated into the grading, dredging, and construction plans.
- All earthwork and site preparation shall be performed under the direct supervision of a certified engineering geologist or geotechnical engineer.

Implementation of these measures would reduce this impact to a ***less-than-significant level***.

Impact 11-5: Corrosive Soils. The soil on the project site is classified as "severely corrosive" to

S

Mitigation 11-5: Require that the *detailed, design-level geotechnical investigations*

Applicant

LS

S = Significant

LS = Less than significant

SU = Significant unavoidable impact

NA = Not applicable

Marina Shores Village Project
City of Redwood City
March 5, 2003
Impacts

Potential
Significance
Without
Mitigation

Mitigation Measures

Mitigation
Responsibility

Potential
Significance
With
Mitigation

iron, steel, metal, and concrete. This condition could result in long-term damage to building foundations and underground utility systems, a possibility that represents a **potentially significant impact**.

recommended under *Mitigations 11-1* and *11-2* include an evaluation of corrosive soils within the limits of all foundation and utility construction. Wherever corrosive soils are found in sufficient concentrations, recommendations shall be made to protect iron, steel, metal, and concrete from long-term deterioration caused by contact with corrosive on-site soils. In general, these recommendations are expected to include, but not be limited to, the following provisions:

- Protect buried iron, steel, cast iron, ductile iron, galvanized steel, and dielectric coated steel or iron (including all buried metallic pressure piping) against corrosion from soil.
- Protect buried metal and cement structures in contact with earth surfaces from chloride ion concentrations.
- Use sulfate-resistant concrete mix for all concrete in contact with the ground, including piles, pile caps, and grade beams.
- Consult a corrosion expert during the project's detailed design phase to help design the most effective corrosion protection.

Implementation of this measure would reduce this

S = Significant

LS = Less than significant

SU = Significant unavoidable impact

NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

potential to a **less-than-significant level**.

Impact 11-6: Soil Erosion and Sedimentation.

Project development would disturb the site's natural topography and vegetative cover, leaving soils exposed to wind and water erosion during the construction period. Eroded soils would be washed either directly into Redwood Creek, Smith Slough, or the marinas, or into on-site drainage facilities, which drain into these same water bodies. Resulting sedimentation could affect the flows of Redwood Creek and Smith Slough, increasing flooding potential and maintenance problems. In addition, suspended sediment would degrade water quality in the creek, slough, and marinas by increasing turbidity. These possible effects of soil erosion represent a **potentially significant impact**.

S

Mitigation 11-6: Require that the applicant prepare an *erosion control plan* subject to City approval and consistent with the required project Stormwater Pollution Prevention Plan (SWPPP) (see *Mitigation 9-1*). Implement the plan during construction. Erosion during all phases of construction shall be controlled through the use of erosion and soil transport control facilities. These shall include the use of catch basins and filter fabrics, and the direction of stormwater runoff away from disturbed areas. The plan shall also provide for long-term stabilization and maintenance of remaining exposed soils after construction is completed. Areas disturbed by construction shall be either covered with impervious surfaces (e.g., buildings and pavement) or fully stabilized with landscaping and/or native vegetation. All revegetated areas shall be irrigated and maintained as necessary to ensure the long-term survival of the vegetation. Implementation of this measure would reduce this potential impact to a **less-than-significant level**.

Applicant

LS

PUBLIC HEALTH AND SAFETY

Impact 12-1: Safety Impacts Related to San Carlos Airport. The proposed project would

S

Mitigation 12-1. In addition to the project review required by C/CAG per PUC section 21670 et

Applicant

LS

- S = Significant
- LS = Less than significant
- SU = Significant unavoidable impact
- NA = Not applicable

Marina Shores Village Project
City of Redwood City
March 5, 2003
Impacts

Potential
Significance
Without
Mitigation Mitigation Measures

Potential
Significance
With
Mitigation
Mitigation
Responsibility

introduce new development and several thousand full-time residents within the restricted height area of the San Carlos Airport planning area. This could represent a ***potentially significant impact***.

seq., the applicant must submit a *Notice of Proposed Construction or Alteration (FAA Form 7460-1)* to the FAA for airspace review. If the proposed project structures are deemed to be obstructions to air navigation, specific mitigation measures required by the FAA shall be implemented to ensure that navigation is not obstructed.

In order to minimize potential conflict between project development and the continued safe and efficient operation of the San Carlos Airport, and as outlined in the San Carlos ALUP, the City shall forward the project plans and a description of the project as well as the General Plan Amendment and Precise Plan applications to the C/CAG Airport Land Use Commission for Commission review and recommendation. Based on the Commission's review of the proposed project, although outside the San Carlos ALUP designated Avigation Easement Review Area, the project *may require* the granting of an Avigation Easement over all or an appropriate portion of the project site, following the process outlined in the San Carlos ALUP, Section H, subsection 4, p. IV-52. Under such an easement, the proposed project residential uses would be considered as "conditional," and as such, could be required to comply with certain C/CAG Airport Land Use

- S = Significant
- LS = Less than significant
- SU = Significant unavoidable impact
- NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

Commission recommended safety measures. Once approved by C/CAG, the project Avigation Easement would be recorded on the title of each included property in the Marina Shores Village development and remain on each included property in perpetuity. The Avigation Easement would constitute a "buyer awareness measure," and would require transfer of appropriate disclosure documents to buyers and renters which include an acknowledgment of potential nuisance and safety issues associated with property ownership and tenancy in proximity to a general aviation facility.

Regardless of the C/CAG decision regarding the Avigation Easement, the transfer of mandatory disclosure documents would be completed as part of the required California Department of Real Estate Transfer Disclosure Statement (TDS) given to all prospective buyers and renters.

Implementation of this measure would reduce safety impacts related to the San Carlos Airport to a **less-than-significant** level.

NOISE

Impact 13-1: Project Compatibility with the Existing and Projected Noise Environment.

S

Mitigation 13-1. Conduct and submit an *acoustical study* for the project multifamily

Applicant

- S = Significant
- LS = Less than significant
- SU = Significant unavoidable impact
- NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation Mitigation Measures

Potential
 Significance
 With
 Mitigation
 Mitigation
 Responsibility

As currently proposed at this preliminary stage of project architectural design, residential units located in the tower structures would be up to 23 stories above ground level. Residences on the uppermost stories of these structures would not be shielded from distant noise sources (e.g., U.S. 101) by intervening buildings or terrain. Noise levels at the facades of the uppermost residences would be expected to be greater than 60 dBA CNEL due primarily to freeway and aviation noise, a noise environment in which “new residential construction or development should not be undertaken” according to the Redwood City Strategic General Plan Noise Element and which is also considered incompatible with residential uses according to the San Carlos Airport Land Use Plan. This condition would therefore represent a **potentially significant impact**.

residential component in accordance with State Title 24 requirements. The study report shall identify to the satisfaction of the City of Redwood City Building Department noise insulation features and other elements (e.g., forced-air mechanical ventilation, sound-rated windows) to be included in the design of the project residential structures sufficient to maintain interior noise levels at or below City and State standards (45 L_{dn}). This report shall be submitted to and approved by the Building Department prior to issuance of a residential building permit. Implementation of this measure would reduce this potential impact to a **less-than-significant level**.

LS Impact 13-2: Ground-Borne Vibration Levels. Project construction would involve pile driving of piles up to 95 feet in length (and potentially longer, depending on project final design and engineering) (see subsection 11.3.4 in chapter 11, Soils and Geology, of this EIR), which could result in ground-borne vibration levels that damage nearby structures or interfere with the enjoyment of daily activities. This effect

S

Mitigation 13-2. Reduce ground-borne vibration levels during project construction by incorporating conditions in project construction agreements that stipulate the following ground-borne vibration abatement measures:

Applicant

LS

- Restrict vibration-generating construction activity to between the hours of 7:00 AM and 7:00 pm, Monday through Friday. Prohibit

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

would be considered a ***potentially significant impact***.

such construction activity on weekends and holidays.

- Notify occupants of land uses located within 200 feet of pile-driving activities of the project construction schedule in writing.
- Pre-drill pile holes to minimize the number of percussions required to seat the pile.

Implementation of these measures would reduce this potential impact to a ***less-than-significant level***.

Impact 13-3: Project Demolition and Construction Noise. Project demolition and construction activities would temporarily elevate noise levels at adjacent residential receptors ("Villas at Bair Island," Marina Pointe, Docktown) as well as at on-site residential areas constructed and inhabited during earlier phases of the project construction period. Noise levels at 50 feet from the construction equipment source could reach approximately 105 dBA, resulting in intermittent interference with typical residential activities. These noise level increases could exceed the noise limits established in the Redwood City Strategic General Plan Noise Element. This possibility represents a ***potentially significant***

S

Mitigation 13-3. Reduce project demolition- and construction-period noise impacts on nearby residences by incorporating conditions in project demolition and construction agreements that stipulate the following conventional construction-period noise abatement measures:

Applicant

SU

- **Construction Plan.** Prepare a detailed construction plan identifying the schedule for major noise-generating construction activities. The construction plan shall identify a procedure for coordination with adjacent noise-sensitive facilities so that construction activities and the event schedule can be scheduled to minimize noise disturbance.

S = Significant

LS = Less than significant

SU = Significant unavoidable impact

NA = Not applicable

Marina Shores Village Project
City of Redwood City
March 5, 2003
Impacts

Potential
Significance
Without
Mitigation

Mitigation Measures

Mitigation
Responsibility

Potential
Significance
With
Mitigation

short-term noise impact.

- ***Noise Disturbance Coordinator.*** Designate 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 warranted to correct the problem. Conspicuously post a telephone number for the disturbance coordinator at the construction site. (The City should be responsible for designating a noise disturbance coordinator and the project applicant should be responsible for posting the phone number and providing construction schedule notices).
- ***Construction Hours.*** Restrict noise-generating construction activity to between the hours of 7:00 AM and 7:00 PM, Monday through Friday. Prohibit such construction activities on weekends and holidays.
- ***Construction Barrier.*** Construct a perimeter, solid plywood construction barrier, eight feet high, to shield nearby residential land uses from construction noise. Prohibit site access on common boundaries between the project

S = Significant
LS = Less than significant
SU = Significant unavoidable impact
NA = Not applicable

Marina Shores Village Project
City of Redwood City
March 5, 2003
Impacts

Potential
Significance
Without
Mitigation

Mitigation Measures

Mitigation
Responsibility

Potential
Significance
With
Mitigation

site and adjacent residential land uses (e.g., the "Villas at Bair Island") during construction phases.

- *Construction Equipment Mufflers and Maintenance.* Properly muffle and maintain all construction equipment powered by internal combustion engines.
- *Equipment Location.* Locate all stationary noise-generating construction equipment, such as air compressors, as far as practical from nearby residences.
- *Truck Routes.* Route all construction traffic to and from the project site via designated truck routes where practical. Prohibit construction-related heavy truck traffic in residential areas where feasible.
- *Quiet Equipment Selection.* Utilize "quiet" construction equipment, particularly air compressors, whenever possible.
- *Pile Driving.* Utilize multiple pile drivers to expedite this phase of project construction and reduce the duration of associated impacts.

S = Significant

LS = Less than significant

SU = Significant unavoidable impact

NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

- *Blanket Barriers.* Cover pile drivers with temporary noise-control blanket barriers.
- *Pile Holes.* Pre-drill foundation pile holes to minimize the number of percussions required to seat the pile.

Implementation of these measures would substantially reduce project construction-period noise impacts, but occasional exceedances of the City standards (60 dBA L_{dn}) at nearby residential areas may still occur. As a result, this impact would remain **significant and unavoidable**.

CULTURAL AND HISTORIC RESOURCES

Impact 14-1: Disturbance of Prehistoric Cultural Resources. Implementation of the proposed project grading plan, including subsurface foundations, dredging, roads and infrastructure, could disturb as yet unidentified sensitive, on-site, subsurface, cultural resources. This potential represents a **potentially significant impact**.

S

Mitigation 14-1. Require that a qualified archaeologist be retained at applicant expense to monitor project-related on-site building foundation, marina, infrastructure, and other excavations. In the event that subsurface cultural resources are encountered during approved ground-disturbing activities, work in the immediate vicinity must be stopped and the retained archaeologist shall evaluate the finds. The discovery or disturbance of any cultural resources shall also be reported to the California Historical Resources Information System (CHRIS) and the Native American Heritage

Applicant

LS

S = Significant
 LS = Less than significant
 SU = Significant unavoidable impact
 NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

Commission. Identified cultural resources shall be recorded on State Department of Parks and Recreation (DPR) form 422 (archaeological sites). Mitigation measures prescribed by these groups and required by the City shall be undertaken prior to resumption of construction activities. If disturbance of a project area cultural resource cannot be avoided, a mitigation program, including measures set forth in the *City's Cultural Resources Management Program* and in compliance with sections 15064.4 and 15126.4 of the CEQA Guidelines, shall be implemented. In the event that any human remains are encountered, earthmoving shall be stopped until the County Coroner's office has been contacted. Implementation of these measures will reduce this potential impact to a ***less-than-significant level***.

AIR QUALITY

Impact 15-1: Construction Emissions. Project construction activities, including proposed building demolition, excavation and grading operations, and filling and dredging, associated construction vehicle traffic, and wind blowing over resultant exposed earth, would generate exhaust emissions and fugitive particulate matter emissions that would affect local air quality.

S

Mitigation 15-1. Dust emissions from demolition and construction activities can be greatly reduced by implementing fugitive dust control measures. The significance of construction impacts is, according to the BAAQMD Guidelines, determined by whether or not appropriate dust control measures are implemented. Implementation of the following conventional

Applicant

LS

- S = Significant
- LS = Less than significant
- SU = Significant unavoidable impact
- NA = Not applicable

Marina Shores Village Project
City of Redwood City
March 5, 2003
Impacts

Potential
Significance
Without
Mitigation

Mitigation Measures

Mitigation
Responsibility

Potential
Significance
With
Mitigation

These possible effects represents a ***potentially significant impact***.

BAAQMD-recommended dust control measures would be expected to reduce this impact to a ***less-than-significant level***:

(1) Demolition Period. Require implementation of the following dust control measures by contractors during demolition of existing structures:

(a)

(b)

(c) Whenever possible, dust-proof chutes shall be used for loading debris onto trucks.(2)

(a)

(b)

(c)

(d)

(e)

(f)

(g)

S = Significant

LS = Less than significant

SU = Significant unavoidable impact

NA = Not applicable

Marina Shores Village Project
 City of Redwood City
 March 5, 2003
 Impacts

Potential
 Significance
 Without
 Mitigation

Mitigation Measures

Mitigation
 Responsibility

Potential
 Significance
 With
 Mitigation

(h)

(i)

(j)

(k)

Impact 15-2: Project and Cumulative Impacts on Regional Emissions. The additional vehicular traffic generated by the project would produce regional emissions exceeding the BAAQMD thresholds of significance for reactive organic gases (ROG), nitrogen oxides (NO_x), and PM₁₀. This effect would represent a **significant project impact**. The BAAQMD Guidelines conclude that any project that would individually have a significant air quality impact would be considered to have a significant cumulative air quality impact. The proposed project, therefore, would also have a **significant cumulative impact** on regional air quality.

S

Mitigation 15-2. In addition to the transportation demand management (TDM) mitigations identified in chapter 7 (Transportation and Circulation) of this EIR, require the office and retail components of the project to implement additional strategies that reduce vehicle usage by encouraging pedestrian, bicycle, and transit modes of travel. Require project residential development to provide for features that reduce air emissions and encourage telecommuting. The measures identified below and in chapter 7 can be expected to reduce project regional emissions by approximately 15 percent beyond that assumed in the air quality analysis. This level of reduction would fall short of the emissions reduction needed to reduce the project's impact to a less-than-significant level. Project-related regional emissions would therefore remain **significant and unavoidable** after implementation of the mitigation measures.

Applicant

SU

S = Significant

LS = Less than significant

SU = Significant unavoidable impact

NA = Not applicable

Marina Shores Village Project
City of Redwood City
March 5, 2003
Impacts

Potential
Significance
Without
Mitigation

Mitigation Measures

Mitigation
Responsibility

Potential
Significance
With
Mitigation

According to BAAQMD significance thresholds,
the proposed project would therefore also
contribute to a ***significant unavoidable
cumulative impact***.

S = Significant
LS = Less than significant
SU = Significant unavoidable impact
NA = Not applicable