

DRAFT  
ENVIRONMENTAL IMPACT REPORT  
FOR THE PROPOSED  
AMENDED AND RESTATED  
REDEVELOPMENT PLAN FOR THE  
RICHMOND MERGED PROJECT AREA

State Clearinghouse #2008112103

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## 1. INTRODUCTION

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### 1.1 EIR PURPOSE AND INTENDED USE

The Richmond Community Redevelopment Agency is proposing to adopt and implement a redevelopment plan amendment, primarily to increase certain fiscal limits, extend the redevelopment plan time limit on the authorization of eminent domain, and update the list of projects, programs and activities that may be undertaken by the Agency in nine existing, fiscally merged redevelopment project areas.<sup>1</sup>

The proposed project involves a total area of approximately 5,348 acres, with anticipated economic benefits extended to the project area over the next 40 years.

This environmental impact report (EIR) has been prepared by the City of Richmond (the "Lead Agency"<sup>2</sup>) pursuant to the California Community Redevelopment Law (California Health and Safety Code section 33333.3) and all relevant sections of the California Environmental Quality Act (CEQA). The EIR is intended to inform City of Richmond and Richmond Community Redevelopment Agency decision-makers, other responsible agencies, and the general public of the proposed 2009 redevelopment plan amendment and the potential environmental consequences of its approval.

As used in this EIR, the terms "*redevelopment plan amendment*," "*Plan Amendment*," "*amended and restated redevelopment plan*," and "*project*" are defined to mean the proposed 2009 redevelopment plan amendment program and the various local and state approvals, entitlements, permits, and actions that may be required to implement the amendment. The terms "*redevelopment project area*," "*project area*," and "*Merged Project Area*," as used in this EIR, are defined as the current approximately 5,348-acre project area consisting of nine existing, fiscally merged project areas. The terms "*Richmond Community Redevelopment Agency*," "*Redevelopment Agency*," "*RCRA*," or "*Agency*," as used in this EIR, are defined as the City of Richmond Community Redevelopment Agency, which would be the legal entity responsible for implementing the amended redevelopment plan following adoption. The term

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<sup>1</sup>The Richmond Community Redevelopment Agency is currently implementing redevelopment plans for nine project areas. Six of the nine areas were amended to add territory between 1980 and 1999. Also, 1999 amendments to the redevelopment plans for these nine project areas provided for their fiscal merger in order to pool and distribute tax increment revenue as necessary to facilitate redevelopment activities. A 2005 amendment to the "10-B Nevin" redevelopment plan added four new subareas (collectively, the 2005 Added Area) to the existing project area originally established in 1972 and last amended in 2004.

<sup>2</sup>The CEQA Guidelines define the "Lead Agency" as the public agency that has the principal responsibility for carrying out or approving a project. The City of Richmond Planning Department (together with the Richmond Redevelopment Agency, a "Responsible Agency"), would be principally responsible for carrying out the proposed redevelopment plan amendment (including making various specific future implementation decisions).

"City," as used in this EIR, is defined as the City of Richmond, acting through its legislative body, the City Council, and its various administrative departments.

As stipulated by the state's Guidelines for Implementation of the California Environmental Quality Act (CEQA Guidelines), this report is intended to serve as a public disclosure document that identifies those environmental impacts associated with the proposed project that are expected to be significant, identifies possible mitigation measures that could minimize or eliminate identified significant adverse impacts, and identifies and evaluates a range of reasonable alternatives to the proposed project.

This EIR is intended to serve as the CEQA- and Community Redevelopment Law-required environmental documentation for use by the City (the Lead Agency) and the Redevelopment Agency (a Responsible Agency<sup>1</sup>) in their consideration of the proposed redevelopment plan amendment. As the Lead Agency, the City also intends that this EIR serve as the CEQA-required environmental documentation for consideration of this project by any Trustee Agencies<sup>2</sup> and other affected taxing entities.<sup>3</sup>

## 1.2 ENVIRONMENTAL DOCUMENTATION APPROACH

### 1.2.1 CEQA Requirements for Redevelopment Plans and Subsequent Redevelopment Actions

CEQA Guidelines section 15180 (Redevelopment Projects), which pursuant to Public Resources Code section 21090 specifically addresses the environmental documentation requirements for redevelopment plans and future redevelopment actions undertaken pursuant to any redevelopment plan, includes the following three subsections:

(a) *An EIR for a redevelopment plan may be a Master EIR, a program EIR, or a project EIR. An EIR for a redevelopment plan must specify whether it is a Master EIR, a program EIR, or a project EIR.*

(b) *If the EIR for a redevelopment plan is a project EIR, all public and private activities or undertakings pursuant to or in furtherance of the redevelopment plan shall constitute a single project, which shall be deemed approved at the time of adoption of the redevelopment plan by the legislative body. The EIR in connection with the redevelopment plan shall be submitted in accordance with Section 33352 of the Health and Safety Code.*

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<sup>1</sup>Under the CEQA Guidelines, the term "Responsible Agency" includes all public agencies, other than the Lead Agency, that have discretionary approval power over aspects of the project for which the Lead Agency has prepared an EIR.

<sup>2</sup>Under the CEQA Guidelines, the term "Trustee Agency" means a state agency having jurisdiction by law over natural resources affected by the project that are held in trust by the people of California. An example of a Trustee Agency is the State Department of Fish and Game.

<sup>3</sup>Pursuant to Health and Safety Code section 33333.3, this Draft EIR will be distributed to each affected taxing entity. "Affected taxing entities" are defined in Health and Safety Code section 33353.2 as those governmental taxing agencies that levy a property tax on all or any portion of the project area.

*If a project EIR has been certified for the redevelopment plan, no subsequent EIRs are required for individual components of the redevelopment plan unless a subsequent EIR or a supplement to an EIR would be required by Section 15162 or 15163.*

*(c) If the EIR for a redevelopment plan is a Master EIR, subsequent projects which the lead agency determines as being within the scope of the Master EIR will be subject to the review required by Section 15177. If the EIR for a redevelopment plan is a program EIR, subsequent activities in the program will be subject to the review required by Section 15168.*

Pursuant to the CEQA Guidelines provisions cited above, this EIR has been prepared as a **program EIR** for the proposed redevelopment plan amendment. As a program EIR, this EIR addresses the aggregate, area-wide, cumulative impacts of the entire "series of related actions" (all of the various redevelopment activities) anticipated with adoption of the proposed redevelopment plan amendment (pursuant to CEQA Guidelines section 15168, Program EIR). The entire series of related redevelopment actions is treated as a single "project." The EIR describes anticipated future growth that could foreseeably occur in the Merged Project Area and the associated area-wide environmental impacts if all of the proposed redevelopment plan amendment actions are adopted and implemented.

CEQA Guidelines section 15162 (Subsequent EIRs and Negative Declarations) indicates that a future public or private action pursuant to the amended redevelopment plan addressed in this EIR would require preparation of a "Subsequent EIR" under one or more of the following conditions: (1) substantial changes are proposed in the project (the proposed redevelopment plan amendment action) that will require major revisions to the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; (2) substantial changes occur with respect to the circumstances under which the project (the proposed redevelopment plan amendment action) is undertaken that will require important revisions to the previous (this) EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified impacts; or (3) new information of substantial importance shows that either (a) the project (the proposed redevelopment plan amendment action) will have one or more significant impacts not previously discussed in the EIR, (b) significant effects previously examined will be substantially more severe than shown in the previous (this) EIR, or (c) mitigation measures or alternatives previously found not to be feasible would be feasible or measures that are considerably different from those analyzed in the previous (this) EIR have been identified that would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the measure or alternative.

### **1.2.2 Program EIR**

As indicated above, this EIR has been formulated as a program EIR. A program EIR is a particular EIR approach authorized by section 15168 (Program EIR) of the CEQA Guidelines for use in documenting the environmental implications of community general plans, redevelopment plans, redevelopment plan amendments, and other "programs" that involve a series of interrelated actions taken by a governmental authority that can be characterized as one project to achieve an overall program goal. The program EIR concept and authority are described in more detail in appendix 22.1 of this EIR (Program EIR Authority).

The approach taken in preparing this EIR under the "program EIR" authority has been to describe the anticipated broad-based, project-area-wide and community-wide impacts of the proposed redevelopment plan amendment. The EIR describes the cumulative, aggregate

effects of the combination of anticipated plan amendment-related actions and facilitated development on future projects area-wide and community-wide environmental conditions. To the extent possible, this EIR also describes the impacts associated with the various individual redevelopment actions identified in the proposed redevelopment plan amendment documents (Preliminary Report and proposed Amended and Restated Redevelopment Plan). Such impacts are described in a level of detail consistent with the level of detail provided in the proposed plan amendment documentation (Preliminary Report, etc.) for the proposed action.

### **1.2.3 EIR Scope**

As set forth under CEQA, the scope of this program EIR is limited to the description of those plan amendment-related impacts and mitigation measures that can be identified at this time, without being highly speculative. The more detailed impacts of each of the various future individual, site-specific, infrastructure, industrial, commercial, and residential development actions that are not specifically described in the proposed plan amendment documents, but may occur within the project area at some future time, pursuant to or facilitated by the plan amendment, are not described in this program EIR; rather, the CEQA-required environmental review of such subsequent individual actions will be undertaken at a later time, if and when such actions come before the City or Redevelopment Agency in the form of a specific discretionary development application or discretionary public improvement project. At that time, when the details of the individual action are sufficiently defined, the action will be subject to its own project-specific environmental determination by the City or the Redevelopment Agency. This determination will indicate that the action (1) is fully covered within the scope of this program EIR, (2) is exempt from CEQA under the CEQA Guidelines, (3) warrants preparation of a mitigated negative declaration (under section 15070 of the CEQA Guidelines), or (4) warrants preparation of a focused subsequent EIR or supplemental EIR limited to certain site-specific issues (under sections 15162 or 15163 of the CEQA Guidelines).<sup>1</sup> At such later times, it is intended that this program EIR will provide a master environmental document for use by the Lead Agency as a baseline and context for "tiering" any such remaining environmental documentation.

Some of the "focus topics" of such subsequent or supplemental environmental reviews could include specific, localized impacts of a redevelopment plan amendment-facilitated action on adjacent land uses, local circulation, local infrastructure and public services, local visual factors, on-site or adjacent cultural or historic values, local drainage and/or water quality conditions, local noise conditions, local trail provisions, underlying hazardous material conditions, or other environmental conditions.

### **1.2.4 Future Development Assumptions**

This program EIR examines the potential overall effects of the proposed redevelopment plan amendment if its objectives to stimulate revitalization and economic development in the project area are fully achieved. The purpose of this program EIR is to evaluate the likely environmental consequences with full realization of the anticipated redevelopment plan amendment plan goal to stimulate revitalization and economic development in the Merged Project Area.

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<sup>1</sup>CEQA Guidelines Article 12.5 addresses Exemptions for Agricultural Housing, Affordable Housing, and Residential Infill Projects; Article 18 addresses Categorical Exemptions; Article 19 addresses Statutory Exemptions; section 15070 addresses Decision to Prepare a Negative Declaration or Mitigated Negative Declaration; section 15162 addresses Subsequent EIRs and Negative Declarations; and section 15163 addresses Supplement to an EIR.

In some portions of the Merged Project Area, existing time limits for undertaking redevelopment activities extend out to 2035 and existing time limits for receiving tax increment extend out to 2050. However, for purposes of "worst case" environmental impact analysis, it is assumed in this EIR that the major portion of the actual physical redevelopment activities associated with the proposed redevelopment plan amendment would be successfully completed over the next approximately 20 years, or by 2030. Also, it is assumed that these redevelopment plan amendment-facilitated actions, as required by state law, will conform to the existing and future applicable local development policies established in the City of Richmond General Plan and associated City regulatory requirements (City of Richmond Zoning Ordinance and Map).

For purposes of "worst case" environmental impact analysis, the impact evaluations in this EIR are based on the assumption that (1) the combination of plan amendment actions will be fully successful in facilitating desired economic development and revitalization; (2) as a result, the Merged Project Area will experience an increase in the rate of industrial, commercial, retail, office, residential, and institutional buildout under existing and future General Plan policies; and (3) the majority of that development will occur by the year 2030.

The actual increment of growth in the Merged Project Area between now and the year 2030 with the proposed plan amendment may eventually prove to be less than what has been assumed in this EIR. Given the length of the anticipated redevelopment activity period (approximately 20 years), there could also be future deviations in the timing, order, or magnitude of the various individual plan amendment-facilitated actions, or in the various controlling future General Plan policies, from what is anticipated in this program EIR. Such deviations are not expected to significantly change the impact and mitigation findings of this program EIR.

### **1.2.5 Tiering**

In 1994, the City certified the City of Richmond General Plan and Zoning Ordinance Updates Program EIR (State Clearinghouse #92033006), which described the anticipated environmental consequences and mitigation requirements associated with citywide buildout under the policies and standards set forth in the City's updated General Plan and Zoning Ordinance. In 2005, the City certified the Proposed Richmond Redevelopment Plan Amendment Program EIR (State Clearinghouse #2004082095), which provided an updated description of the environmental consequences and mitigation requirements associated with citywide buildout under the policies and standards set forth in the City's adopted General Plan, Zoning Ordinance, and other applicable plans and policies, facilitated in part by the 2005 redevelopment plan amendment actions. In 2008, the City certified the Proposed Richmond Enterprise Zone Re-Designation Program EIR (State Clearinghouse #2006092012), which evaluated the environmental impacts of re-designating and expanding the City's Enterprise Zone, an economic incentive program covering an area similar to the current redevelopment project area.

Pursuant to CEQA Guidelines section 15385 (Tiering), findings in this 2009 Richmond Redevelopment Plan Amendment Program EIR are tiered wherever possible upon the City-certified 1994 General Plan and Zoning Ordinance Updates Program EIR, 2005 Redevelopment Plan Amendment Program EIR, and 2008 Enterprise Zone Re-Designation Program EIR.

### **1.2.6 Impact Assessment Baseline**

CEQA Guidelines section 15125(a) stipulates that the existing environmental setting (the environmental conditions in the project vicinity at the time the environmental analysis is

commenced) should constitute the baseline physical conditions by which it is determined whether an impact is significant. Pursuant to this guideline, all impact assessments in this EIR are based on comparison of the projected future "with project" condition with the existing environmental setting, rather than on comparison of the projected future "with project" condition with the future "without project" condition. For a generalized comparative evaluation of anticipated future "with project" conditions with future "without project" conditions--i.e., with what would be expected to occur in the foreseeable future if the redevelopment plan amendment were not approved, see the discussion of Alternative 1, No Project, in chapter 19 of this EIR (Alternatives to the Proposed Action).

### 1.3 EIR SCOPE: POSSIBLE SIGNIFICANT ENVIRONMENTAL EFFECTS

As provided for in the CEQA Guidelines, the scope of this EIR includes all environmental issues to be resolved that are currently known to the Lead Agency (the City) and by other interested agencies and individuals in response to the City-issued Notice of Preparation of a Draft EIR (NOP).<sup>1</sup> These identified issues and concerns are:

- (1) potential impacts of the project-facilitated actions and project-facilitated future (2030) growth scenario on existing **land use** characteristics in the Merged Project Area;
- (2) potential impacts of the project-facilitated actions and project-facilitated future (2030) growth scenario on **population, housing, and employment** characteristics in the Merged Project Area, and in the City as a whole;
- (3) potential impacts of the project-facilitated actions and project-facilitated future (2030) growth scenario on the future **transportation and circulation** network serving the Merged Project Area, including effects on peak-period roadway system volumes, operation and safety, and on general transit, pedestrian, bicycle, and parking needs;
- (4) potential impacts of the project and project-facilitated actions and project-facilitated future (2030) growth scenario on existing and future **infrastructure and public service** provisions and needs in the Merged Project Area, including schools, police and fire protection, sewer and water, parks and recreation, and solid waste;
- (5) potential impacts of the project-facilitated actions and project-facilitated future (2030) growth scenario on existing and future **aesthetic** (visual) conditions in the Merged Project Area;
- (6) potential impacts of the project-facilitated actions and project-facilitated future (2030) growth scenario on **biological resources**, particularly on any significant riparian, wetland, or other special habitat values known to exist in the Merged Project Area;
- (7) potential impacts of the project-facilitated actions and project-facilitated future (2030) growth scenario on **cultural or historical resource values** in the Merged Project Area;
- (8) potential impacts of existing **geologic, soil, and seismic** conditions in the Merged Project Area on anticipated project-facilitated infrastructure improvements and on the project-facilitated future (2030) growth scenario;

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<sup>1</sup>The California Office of Planning and Research (OPR) State Clearinghouse received the City's Notice of Preparation (NOP) of a Draft EIR (see EIR appendix 22.2) on November 25, 2008.

(9) potential impacts of the project-facilitated actions and project-facilitated future (2030) growth scenario on **drainage or water quality** conditions, including impacts on internal (Merged Project Area) and external (downstream) drainage system capacities, flooding conditions, and water quality;

(10) potential impacts of the project-facilitated actions and project-facilitated future (2030) growth scenario on **noise** conditions, including the anticipated impacts of projected vehicular traffic and point source noise increases on ambient and cumulative future noise levels in the Merged Project Area and along the principal travel routes serving the area;

(11) potential impacts of the project-facilitated actions and project-facilitated future (2030) growth scenario on local and regional **air quality**, based on the impact assessment guidelines and modeling requirements of the Bay Area Air Quality Management District;

(12) potential impacts of the project-facilitated actions and project-facilitated future (2030) growth scenario related to **hazards and hazardous materials** exposure (i.e., possible construction period or long-term exposure to soil and groundwater contamination from past activities, etc.), including a description of any possible project-facilitated remediation efforts; and

(13) potential impacts of the project-facilitated actions and project-facilitated future (2030) growth scenario on **climate change**.

## 1.4 READERS' GUIDE TO THE DRAFT EIR

### 1.4.1 Report Organization and Content

The information in this EIR is generally organized under the headings listed above (Land Use and Planning; Population, Housing, and Employment; Transportation and Circulation; Infrastructure and Public Services; Aesthetics; Biological Resources; Cultural and Historic Resources; Geology and Soils; Drainage and Water Quality; Noise; Air Quality; Hazardous Materials; and Climate Change). For each issue, the report describes:

1. the existing setting;
2. adopted local and regional plans, policies, and regulations pertinent to the environmental topic; and
3. significant impacts anticipated with adoption and successful implementation of the proposed plan amendment, and associated mitigation measures recommended to reduce or eliminate anticipated significant adverse impacts.

In addition, in keeping with CEQA Guidelines, the EIR includes a chapter evaluating project consistency with adopted local and regional plans, a chapter evaluating various alternatives to the proposed action, and a chapter summarizing the EIR information in terms of various CEQA-required impact categories. These categories include growth-inducing impacts, unavoidable significant adverse effects, irreversible environmental changes, cumulative impacts, and effects found not to be significant.

#### **1.4.2 "Significant Impacts" and Other EIR Terminology**

This EIR identifies those adverse project environmental impacts that are expected to be "significant," and corresponding mitigation measures warranted to eliminate or reduce those impacts to less-than-significant levels. Where it is determined in this report that a particular impact cannot be mitigated to a less-than-significant level, the EIR identifies that impact as "unavoidable." Section 18.2 of this EIR, "Unavoidable Significant Adverse Impacts," includes a summary list of all significant project impacts identified as "unavoidable." Identified significant impacts that are not listed in section 18.2 as "unavoidable" have been determined to be capable of being reduced to a less-than-significant level by implementing the associated mitigation measure or measures identified in this EIR.

These particular EIR terms ("significant," "unavoidable," "mitigation"), and other key CEQA terminology used in this report, are defined in Table 1.1.

#### **1.5 FISCAL IMPACTS**

The fiscal effects of the proposed redevelopment plan amendment are not identified in this EIR. The fiscal impacts of the proposed project are non-"environmental" effects and are therefore being evaluated under a separate procedure being completed concurrently with, but independently of, the EIR process.<sup>1</sup> Pursuant to California Community Redevelopment Law, the Redevelopment Agency circulates to all affected taxing entities, concurrently with the circulation of this Draft EIR, a *Preliminary Report* prepared in accordance with Health and Safety Code section 33344.5, describing the fiscal effects of the project, and the Agency will consult with each affected taxing entity regarding the financial effects of the proposed redevelopment plan amendment as provided in Health and Safety Code section 33328.

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<sup>1</sup>Section 15131 of the CEQA Guidelines allows the Lead Agency to present economic or social information on a project in whatever form the Agency desires to allow such factors to be considered in reaching a decision on a project, but also stipulates that "Economic or social effects of a project shall not be treated as significant effects on the environment." In accordance with the California Community Redevelopment Law, required economic and social information will be provided in the *Preliminary Report* and *Report to Council* prepared by the Richmond Community Redevelopment Agency pursuant to Health and Safety Code sections 33344.5 and 33352, respectively.

Table 1.1

<b>DEFINITIONS OF KEY EIR TERMINOLOGY</b>	
<b>Significant/Potentially Significant Impact</b>	"Significant effect on the environment" means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic and aesthetic significance. (CEQA Guidelines, section 15382.) <i>"An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant."</i> (CEQA Guidelines, section 15382.)
<b>Significant Cumulative Impact</b>	"Cumulative impacts" are defined as <i>"two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts."</i> (CEQA Guidelines, section 15355.)
<b>Unavoidable Significant Impact</b>	"Unavoidable significant impacts" are defined as those significant adverse environmental impacts for which either no mitigation or only partial mitigation is feasible. If the project is to be approved without imposing an alternative design, the Lead Agency must include in the record of the project approval a written statement of the specific reasons to support its action--i.e., a "statement of overriding considerations." (CEQA Guidelines, sections 15126.2(b) and 15093(b).)
<b>Significance Criteria</b>	The criteria used in this EIR to determine whether an impact is or is not "significant" are based on (a) CEQA-stipulated "mandatory findings of significance"--i.e., any of the specific conditions that the Legislature and the Secretary of Resources have determined to constitute a potentially significant effect on the environment, as listed in CEQA Guidelines section 15065; (b) specific criteria that a Resources Agency has determined are "normally" considered to constitute a "significant effect on the environment"; (c) the relationship of the project effect to the adopted policies, ordinances, and standards of the City and of responsible agencies; and/or (d) commonly accepted practice and the professional judgment of the EIR authors and Lead Agency staff.
<b>Mitigation Measures</b>	For each significant impact, the EIR must identify a specific "mitigation" measure or set of measures capable of <i>"(a) avoiding the impact altogether by not taking a certain action or parts of an action; (b) minimizing impacts by limiting the degree or magnitude of the action and its implementation; (c) rectifying the impact by repairing, rehabilitating, or restoring the impacted environment; (d) reducing or eliminating the impact over time by preservation or maintenance operations during the life of the action; or (e) compensating for the impact by replacing or providing substitute resources or environments."</i> (CEQA Guidelines, section 15370.)
<b>SOURCE:</b> Wagstaff and Associates, 2009.	



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## 2. SUMMARY

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This EIR chapter provides a brief summary of the proposed 2009 Richmond Redevelopment Plan Amendment Program and its potential environmental consequences. The chapter includes a summary description of the proposed plan amendment and associated redevelopment activities, a summary list of possible environmental issues to be resolved, a summary identification of each significant environmental impact and associated mitigation identified in this EIR, and a summary of EIR-identified project alternatives.

This summary should not be relied upon for a thorough understanding of individual impacts and mitigation measures. Please refer to sections 4 through 16 of this EIR for a more complete description of project impacts and mitigation measures.

### 2.1 PROPOSED PROJECT

Pursuant to California Community Redevelopment Law (California Health and Safety Code section 33000 et seq.), the Richmond Community Redevelopment Agency (Redevelopment Agency), in cooperation with the City of Richmond (City), is proposing to adopt and implement a redevelopment plan amendment primarily to increase certain fiscal limits, extend the redevelopment plan time limit on the authorization of eminent domain, and update the list of projects, programs and activities that may be undertaken by the Redevelopment Agency in nine existing, fiscally merged redevelopment project areas (Merged Project Area).

The proposed project involves a total area of approximately 5,348 acres, with anticipated economic benefits extended to the Merged Project Area over the next 40 years.

The intent of the proposed redevelopment plan amendment is to provide a means for the Redevelopment Agency to continue its activities to overcome adverse physical and economic conditions and facilitate revitalization in designated areas--i.e., the Merged Project Area--of Richmond. Adoption of the proposed plan amendment would permit the Redevelopment Agency to implement continued and updated blight elimination and economic revitalization activities within the Merged Project Area through use of authority granted by the California Community Redevelopment Law (Part 1 of Division 24 of the State Health and Safety Code). The amendment would provide for continued implementation of a combination of redevelopment activities, including economic development programs, public infrastructure improvements, property rehabilitation assistance, circulation and landscaping improvements, land assembly and site development assistance, and affordable housing assistance.

As authorized by California Community Redevelopment Law, tax increment financing is the primary funding mechanism for redevelopment. Tax increment financing allows a redevelopment agency to receive a portion of future property tax revenue growth (or "tax increment") that arises from future development and associated increases in property value within the redevelopment project area boundaries.

## 2.2 ENVIRONMENTAL ISSUES

As provided for in CEQA statutes and guidelines, the environmental focus of this EIR is limited to those environmental issues known to the City of Richmond (the Lead Agency), including those concerns identified as possibly significant by the City in its preliminary review of the proposed project, and by other interested agencies and individuals in response to the Notice of Preparation. These identified areas of impact concern include possible project impacts on:

1. Land use and planning;
2. Population, housing, and employment;
3. Transportation and circulation;
4. Infrastructure and public services;
5. Aesthetics;
6. Biological resources;
7. Cultural and historic resources;
8. Geology and soils;
9. Drainage and water quality;
10. Noise;
11. Air quality;
12. Hazardous materials; and
13. Climate change.

## 2.3 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Each significant project impact and associated mitigation measure or measures identified in this EIR is summarized in Table 2.1, the SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATIONS chart that follows. The summary chart has been organized to correspond with the more detailed impact and mitigation discussions in chapters 4 through 16 of this EIR. The chart is arranged in five columns: (1) significant adverse environmental impacts, (2) level of impact significance prior to implementation of recommended mitigation measures, (3) recommended impact mitigation measures, (4) entity responsible for implementing each mitigation measure, and (5) level of impact significance after implementation of the mitigation measures. In those instances where more than one measure may be required to mitigate an impact, a series of mitigation measures is listed.

**Table 2.1  
 SUMMARY OF IMPACTS AND MITIGATION MEASURES**

Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
<b>LAND USE</b>				
<b>Impact 4-1: Adverse Land Use Compatibility Impacts.</b> In addition to the kinds of beneficial land use compatibility effects cited above, some project-facilitated land use changes within the Merged Project Area could result in adverse land use impacts. Given the proximity of some existing and planned differing land uses in subareas of the Merged Project Area, project-assisted intensification could introduce significant new land use conflicts between specific industrial or commercial developments next to or near residential, park or open space uses (e.g., public safety, security, traffic, visual, light, noise, parking, odor and other conflicts). Such project-induced effects would represent <b>potentially significant adverse land use compatibility impacts.</b>	S	<b>Mitigation 4-1:</b> During City Planning Department staff, Design Review Board and Planning Commission review, and prior to approval of individual projects within the Merged Project Area, the City shall emphasize the need to avoid significant new land use conflicts between non-residential and residential development, between sensitive new commercial uses and existing nuisance-prone commercial and industrial uses, and between new uses and valued shoreline and hillside resource areas. During these review procedures and the formulation of conditions of approval, the City shall require assurances of (1) adequate land use separation, scale transition, and noise buffering; (2) creative siting of buildings to avoid conflicts; (3) adequate protections against light, glare, and shadow impacts; (4) adequate noise and odor control; (5) adequate offstreet parking provisions; and (6) other common measures warranted to avoid such land use conflicts. Implementation of these measures to the satisfaction of Planning Department staff, Design Review Board and Planning Commission, and consistent with the applicable	City	LS

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

Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
<p style="text-align: center;"><b>TRANSPORTATION AND CIRCULATION</b></p> <p><b>Impact 6-1: Peak Hour Operational Impacts on Intersections (With-Project Condition).</b> Roadway traffic generated by project-facilitated development in the Merged Project Area under the land use policies of the adopted Richmond General Plan would contribute substantially to significant 2030 cumulative intersection impacts at the following 14 intersections in the AM and PM peak hours (as previously noted):</p> <ul style="list-style-type: none"> <li>▪ Blume Drive/Richmond Parkway (AM/PM),</li> <li>▪ Carlson Boulevard/Cutting Boulevard (PM),</li> <li>▪ Castro Street/I-580 westbound ramps (PM),</li> <li>▪ Harbour Way/Pennsylvania Avenue (AM/PM),</li> <li>▪ Harbour Way/Cutting Boulevard (AM),</li> <li>▪ I-580 westbound on/off ramps/Bayview Avenue (PM),</li> <li>▪ I-80 eastbound on/off ramps/Central Avenue (PM),</li> <li>▪ I-80 westbound on/off ramps/Barrett Avenue (AM),</li> </ul>	S	<p>Richmond General Plan policies and special area design guidelines listed in sections 4.2.1 (b) and 4.2.1 (c) herein, would reduce potential land use compatibility impacts to a <b>less-than-significant level.</b></p> <p><b>Mitigation 6-1.</b> Consistent with Richmond General Plan Policy CIR-B.14, the City shall use its Capital Improvement Program (CIP), development dedications, public facilities fees, and other mechanisms to finance transportation needs and improvements, including the intersection improvements necessitated by this cumulative-with-project impact. The City shall set priorities for intersection improvements to ensure that funding is allocated as necessary to serve anticipated General Plan-designated growth in the Merged Project Area.</p> <p>Consistent with General Plan Policy CIR-B.14, all new discretionary development projects assisted by the redevelopment plan amendment-authorized redevelopment program shall be required to pay their fair share of the cost of constructing needed transportation facilities. All essential improvements shall be installed prior to or concurrent with such new development or</p>	City	SU

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
<ul style="list-style-type: none"> <li>▪ I-80 westbound on/off ramps/Central Avenue (AM),</li> <li>▪ Richmond Parkway/Gertrude Avenue (AM/PM),</li> <li>▪ Richmond Parkway/Goodrick Avenue (PM),</li> <li>▪ Richmond Parkway/Parr Boulevard (AM/PM),</li> <li>▪ San Pablo Avenue/McBryde Avenue (PM), and</li> <li>▪ South 23<sup>rd</sup> Street/Cutting Boulevard (PM).</li> </ul> <p>The 2030 cumulative-with-project impacts would create the need for improvements at these intersections in order to maintain the City's desired level of service.</p> <p>The substantial project contributions to anticipated cumulative deteriorations in operation at these 14 intersections would represent a <b>significant project and cumulative impact</b>.</p>	<p>phased as specified in applicable individual environmental documents and/or conditions of approval. Also, consistent with General Plan policies, the City shall pursue, and the Redevelopment Agency shall consider providing appropriate assistance to, General Plan-identified transit improvement needs and other alternative transportation programs that help to reduce cumulative traffic on roads.</p> <p>Specific future discretionary development projects within the Merged Project Area would be subject to General Plan policies CIR-B.3, CIR-B.4, CIR-B.14, CIR-C.1, CIR-C.2, CIR-C.6, and CIR-C.7 that would help to reduce most potential project-related transportation and circulation impacts. In addition, the City and the Congestion Management Agency (CCTA) require project-specific traffic studies and associated mitigation programs for projects generating 100 or more peak hour trips.</p> <p>However, implementation of intersection improvements would require fair share funding programs that are not sufficiently developed at this time. Some of the improvements may be delayed such that implementation may not generally coincide with the timing of project-facilitated development in the Merged Project Area. As a result of these two factors, implementation of the necessary intersection</p>			

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
<p><b>Impact 6-2: Inadequate Roadway Access to San Pablo Peninsula.</b> Western Drive is the only route of ingress to and egress from the Point San Pablo portion of the Merged Project Area--i.e., the Terminal 4 and Point San Pablo Yacht Harbor subareas. Western Drive is currently a one- and two-lane road in poor condition. Anticipated future redevelopment-facilitated development along with other potential development in the Point San Pablo area would cause a cumulative increase in traffic that is substantial in relation to the existing traffic load and capacity of Western Drive and the Western Drive connections to I-580. This effect would represent a <b>significant project and cumulative impact</b>.</p>	S	<p><b>Mitigation 6-2.</b> The City shall condition approval of future development projects in the Point San Pablo area on completion of a <i>North San Pablo Peninsula Traffic Impact and Mitigation Study</i> that, to the satisfaction of the City Engineer and Caltrans, describes project-specific and cumulative improvement needs for the Western Drive vehicular access network (including the Western Drive/I-580 interchange), and associated project-specific fair-share implementation, sufficient to meet City and Contra Costa Transportation Authority (CCTA) operational standards. Implementation of this measure would reduce this impact to a <b>less-than-significant level</b>.</p>	City	LS
<p><b>Impact 8-1: Adverse Visual Incompatibility Impacts on Existing Uses.</b> Redevelopment-facilitated development within the Merged Project Area could result in adverse visual incompatibilities between differing land uses,</p>	S	<p><b>Mitigation 8-1.</b> As a condition of Redevelopment Agency assistance, and through the City's design review process, the City shall require redevelopment-assisted discretionary rehabilitation projects and redevelopment-</p>	City and Agency	LS

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 SU = Significant unavoidable impact  
 NA = Not applicable

Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
<p><b>Impacts</b></p> <p>building scales, building heights, etc. In particular, redevelopment-assisted new industrial, commercial, industrial/office/ flex, hotel, or higher-density residential development within or adjacent to an existing lower-density residential neighborhood, park, or open space use, or adjacent to the bay shoreline, could be perceived as visually incompatible and/or create light or glare problems. The resulting degradation of the existing visual character or quality of the existing use would represent a <b>significant adverse project and cumulative visual impact</b>,</p>	<p>assisted discretionary new development projects to:</p> <ul style="list-style-type: none"> <li>▪ achieve a "pleasant transition" between residential, commercial and industrial land uses (as per Richmond General Plan <i>Land Use Element</i> Goal LU-B);</li> <li>▪ incorporate effective and attractive design elements, visual buffering and/or landscape screening to increase visual compatibility (setbacks, appropriate building mass and density transition, plantings, etc.);</li> <li>▪ for structural rehabilitation and new residential construction within or adjacent to predominantly single-family residential neighborhoods, to the extent practical, retain the "grain" of the existing neighborhood through small-scale, infill design approaches that avoid substantial disruption of the existing neighborhood fabric (per <i>Land Use Element</i> Policy LU-K.3);</li> <li>▪ incorporate other on- and off-site features to enhance and complement surrounding areas (<i>Land Use Element</i> Policy LU-B.1); and</li> <li>▪ use exterior lighting only where necessary for safety and security purposes, and ensure</li> </ul>		

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
<p><b>Impact 8-2: Impacts on Visual Quality Along Principal Travelways.</b>                      Redevelopment-facilitated residential, commercial, industrial or industrial/office flex development adjacent to General Plan-identified scenic corridors and major thoroughfares, including the Richmond Parkway loop (Garrard Boulevard and Castro Street), 23rd Street, Barrett Avenue, Western Drive, and I-580, and along other visually sensitive streets traversing the Merged Project Area, if not sensitively designed, could substantially degrade the visual character of the travelway and surrounding area, representing a <b>potentially significant adverse project and cumulative visual impact.</b></p>	<p>S</p>	<p><b>Mitigation 8-2.</b> As a condition of redevelopment assistance to new discretionary development adjacent to General Plan-identified scenic corridors and major thoroughfares, and along other visually sensitive streets traversing the Merged Project Area, the City shall encourage creation of attractive settings along these frontages (as per <i>Land Use Element</i> Policies LU-D.1 and LU-O.1) through sensitive building siting and architectural design, and through effective use of landscaping, signage control, utilities undergrounding, etc. Implementation of this measure to the satisfaction of the City Planning Department staff, Design Review Board, and Planning Commission would reduce this impact to a <b>less-than-significant level.</b></p>	<p>City and Agency</p>	<p>LS</p>
<p><b>Impact 8-3: Impacts on Views from Southern and Western Richmond.</b>                      Redevelopment-facilitated development activity</p>	<p>S</p>	<p><b>Mitigation 8-3.</b> As a condition of Redevelopment Agency assistance actions in southern and western Richmond, the City shall</p>	<p>City and Agency</p>	<p>LS</p>

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 NA = Not applicable

Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
<p>in southern and western Richmond, unless sensitively designed, could eliminate or diminish realization of General Plan-identified stationary view opportunities, including views of the Harbor Channel, Richmond Inner Harbor, Brooks Island, and San Francisco Bay in southern Richmond; and views of the Potrero-San Pablo Hills ridgeline in western Richmond. These possible adverse effects on scenic vistas represent a <b>potentially significant adverse project and cumulative visual impact.</b></p>	<p>S</p>	<p>require identification of key vista points in the affected area, in consultation with City Planning Department staff, for possible accommodation of vista points, and provide for protection of these key vista points through appropriate building siting and height controls, and possible public vantage point provisions in individual projects. Implementation of this measure to the satisfaction of the City's Design Review Board and Planning Commission would reduce this potential adverse visual impact to a <b>less-than-significant level.</b></p>	<p>City and Agency</p>	<p>LS</p>
<p><b>Impact 8-4: Impacts on Valuable Shoreline Views and Visual Amenities.</b>                      Redevelopment-facilitated development activity at Point San Pablo and in other shoreline areas, if not sensitively designed, could displace, block, or impair visual and public access to existing and potential shoreline amenities, and could block, impair, or detract from unique shoreline view opportunities. These possible adverse effects on scenic amenities and vistas represent a <b>potentially significant adverse project and cumulative visual impact.</b></p>	<p>S</p>	<p><b>Mitigation 8-4.</b> As part of, or a condition of Redevelopment Agency assistance actions in shoreline areas, and through the City's design review process, the City shall implement the following measures:</p> <ul style="list-style-type: none"> <li>▪ place high priority on preserving and enhancing existing and potential shoreline amenities (as per <i>Land Use Element</i> Policy LU-E.1 and <i>Land Use Element</i> West Shoreline Guideline 9),</li> <li>▪ require any Redevelopment Agency-assisted new development activities to preserve unique view opportunities of the shoreline and maximize public access to shoreline views (as per <i>Land Use Element</i> Policy LU-E.2), and</li> </ul>	<p>City and Agency</p>	<p>LS</p>

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Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
S	<ul style="list-style-type: none"> <li>require developer identification of specific important vistas, view corridors, and vista points of the shoreline and bay, in consultation with City Planning Department staff, and in response to important vistas in the area as generally identified on the <u>City of Richmond General Plan Inventory of Visual Forms map (Figure C-1)</u>, for possible accommodation of public shoreline access points, and/or shoreline trail provisions, and protect these identified specific vistas and view corridors through appropriate building siting and height controls (as per General <i>Plan Open Space and Conservation Element Policy OSC-G.3</i>).</li> </ul>	City and Agency	LS
S	<p><b>Impact 8-5: Impacts on Bay Trail Implementation and Shoreline Trail Views.</b> Redevelopment-facilitated development activity at Point San Pablo and in other shoreline areas, if not sensitively designed, could also impair effective implementation of designated Bay Trail segments and associated shoreline public access and view opportunities. This</p>	City and Agency	LS

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 NA = Not applicable

Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
<p>possible adverse effect on a scenic vista represents a <b>potentially significant adverse project and cumulative visual impact.</b></p>	<p>S</p>	<p>provisions (General Plan Land Use Element Shoreline General Guideline 2). Implementation of this measure to the satisfaction of the City Planning Department staff, Design Review Board, and Planning Commission would mitigate this impact to a <b>less-than-significant level.</b></p>	<p>City</p>	<p>LS</p>
<p><b>CULTURAL AND HISTORIC RESOURCES</b></p>				
<p><b>Impact 10-1: Disturbance of Archaeological Resources.</b> Additional development and redevelopment facilitated by the project could disturb existing known or unrecorded sensitive archaeological resources in the Merged Project Area. This possibility represents a <b>potentially significant impact.</b></p>	<p>S</p>	<p><b>Mitigation 10-1.</b> During the City's normal project-specific environmental review (Initial Study) process for all future, discretionary, public improvement and private development projects in the Merged Project Area, the City shall determine the possible presence of, and the potential impacts of the action on, archaeological resources. For projects involving substantial ground disturbance, the individual project sponsor or environmental consultant shall be required to contact the California Historical Resources Information System (CHRIS) to determine whether the particular project is located in a sensitive area. Future development projects that the CHRIS determines may be located in a sensitive area--i.e., on or adjoining an identified archaeological site--shall proceed only after the project sponsor contracts with a qualified archaeologist to conduct a determination in regard to cultural values remaining on the site and warranted mitigation measures.</p>	<p>City</p>	<p>LS</p>

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- NA = Not applicable

Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
Impacts	<p>To make an adequate determination in these particular instances, the archaeologist shall conduct a preliminary field inspection to (1) assess the amount and location of visible ground surface, (2) determine the nature and extent of previous impacts, and (3) assess the nature and extent of potential impacts. Such field inspection may demonstrate the need for some form of additional subsurface testing (e.g., excavation by auger, shovel, or backhoe unit), or, alternatively, the need for on-site monitoring of subsurface activities (i.e., during grading or trenching).</p> <p>If a significant archaeological resource is identified through this field inspection process, the City and project proponent shall seek to avoid damaging effects to the resource. Preservation in place to maintain the relationship between the artifact(s) and the archaeological context is the preferred manner of mitigating impacts to an archaeological site. Preservation may be accomplished by:</p> <ul style="list-style-type: none"> <li>▪ planning construction to avoid the archaeological site;</li> <li>▪ incorporating the site within a park, green space, or other open space element;</li> <li>▪ covering the site with a layer of chemically stable soil; or</li> </ul>		

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 NA = Not applicable

Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
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Impacts

- deeding the site into a permanent conservation easement.

When in-place mitigation is determined by the City to be infeasible, a *data recovery plan*, which makes provisions for adequate recovery of culturally or historically consequential information about the site, shall be prepared and adopted prior to any additional excavation being undertaken. Such studies shall be submitted to the CHRIS. If Native American artifacts are indicated, the studies shall also be submitted to the Native American Heritage Commission. Identified cultural resources shall be recorded on form DPR 422 (archaeological sites). Mitigation measures recommended by these two groups and required by the City shall be undertaken, if necessary, prior to resumption of construction activities.

A *data recovery plan* and data recovery shall not be required if the City determines that testing or studies already completed have adequately recovered the necessary data, provided that the data have already been documented in another EIR or are available for review at the CHRIS (CEQA Guidelines section 15126.4[b]).

In the event that subsurface cultural resources are otherwise encountered during approved ground-disturbing activities for a Merged Project

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- NA = Not applicable

Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
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Area construction activity, work in the immediate vicinity shall be stopped and a qualified archaeologist retained to evaluate the finds following the procedures described above.

If human remains are found, special rules set forth in State Health and Safety Code section 7050.5 and CEQA Guidelines section 15126.4(b) shall apply.

Implementation of this measure would supplement the City's existing General Plan policies and implementation programs and would reduce this impact to a **less-than-significant level**.

**Impact 10-2: Destruction/Degradation of Historic Resources.** Future development projects may result in substantial adverse changes in the significance of one or more individual potentially significant historic properties in the Merged Project Area. If a historic resource were the subject of a future, site-specific development proposal, substantial adverse changes that may potentially occur include physical demolition, destruction, relocation, or alteration of one or more of these identified resources, such that the resource is "materially impaired." A historic resource is considered to be "materially impaired" when a

**Mitigation 10-2.** Generally, for any future discretionary action within the Merged Project Area that the City determines through the CEQA-required Initial Study review process may cause a "substantial adverse change" to an identified historic resource, the City and applicant shall incorporate measures that would seek to improve the affected resource in accordance with either of the following publications:

- Secretary of Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating,

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- NA = Not applicable

Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
<p>Impacts</p> <p>project demolishes or materially alters the physical characteristics that justify the determination of its significance (CEQA Guidelines section 15064.5[b]). Such an adverse change to a CEQA-defined historic resource would constitute a <b>potentially significant impact</b>.</p>	<p><i>Restoring, and Reconstructing Historic Buildings</i>; or</p> <ul style="list-style-type: none"> <li>Secretary of Interior's <i>Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings</i>.</li> </ul> <p>Successful incorporation of these measures would supplement the City's existing General Plan policies and implementation programs and would reduce the impact to a <b>less-than-significant level</b> (CEQA Guidelines section 15126.4[b]). This mitigation shall be made enforceable by its incorporation into the redevelopment plan amendment as a City-adopted requirement to be implemented through subsequent development-specific permits, conditions, agreements, or other measures, pursuant to CEQA Guidelines section 15064.5(b)(3-5).</p>		
			<p>Although not anticipated under the proposed redevelopment program, for any future discretionary action that would result in the <u>demolition</u> of an identified historic resource, or otherwise cause the significance of the resource to be "materially impaired," the City shall determine through the Initial Study process that the resulting potential for a significant impact is unavoidable, thereby requiring a project-specific</p>

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- NA = Not applicable

Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
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**Impact 10-3: Destruction/Degradation of Paleontological Resources.** Additional development and redevelopment facilitated by the project could disturb existing known or unrecorded paleontological resources in the Merged Project Area. This possibility represents a **potentially significant impact**.

EIR (CEQA Guidelines section 15064.5[a] and [b]).

**Mitigation 10-3.** During the City's normal project-specific environmental review (Initial Study) process for all future, discretionary public improvement and private development projects in the Merged Project Area, the City shall determine the possible presence of, and the potential impacts of the action on, paleontological resources. For projects involving substantial ground disturbance in an area where the City has determined the possible presence of paleontological resources, the City shall require individual project applicants to carry out the following measures:

(1) *Education Program.* Project applicants shall implement a program that includes the following elements:

- Resource identification training procedures for construction personnel;
- Spot-checks by a qualified paleontological monitor of all excavations deeper than seven feet below ground surface; and
- Procedures for reporting discoveries and their geologic content.

S = Significant  
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 SU = Significant unavoidable impact  
 NA = Not applicable

Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
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(2) *Procedures for Resources Encountered.* If subsurface paleontological resources are encountered, excavation shall halt in the vicinity of the resources and the project paleontologist shall evaluate the resource and its stratigraphic context. The monitor shall be empowered to temporarily halt or redirect construction activities to ensure avoidance of adverse impacts on paleontological resources. During monitoring, if potentially significant paleontological resources are found, "standard" samples shall be collected and processed by a qualified paleontologist to recover micro vertebrate fossils. If significant fossils are found and collected, they shall be prepared to a reasonable point of identification. Excess sediment or matrix shall be removed from the specimens to reduce the bulk and cost of storage. Itemized catalogs of material collected and identified shall be provided to the museum repository with the specimens. Significant fossils collected during this work, along with the itemized inventory of these specimens, shall be deposited in a museum repository for permanent curation and storage. A report documenting the results of the monitoring and salvage activities, and the significance of the fossils, if any, shall be prepared. The report and inventory, when submitted to the lead agency, shall signify the completion of the program to mitigate impacts on paleontological resources.

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 SU = Significant unavoidable impact  
 NA = Not applicable

Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
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Implementation of this measure would reduce the impact to a **less-than-significant level**.

**DRAINAGE AND WATER QUALITY**

**Impact 12-1: Impacts on Surface Water Quality.** Surface water pollutants associated with project-facilitated additional development activity, including soil disturbance associated with grading activities during construction, urban pollutants generated from new impervious surfaces and increased vehicular use, and possible increases in herbicide, pesticide, and fertilizer use (for landscaping), could combine to significantly degrade the quality of San Francisco Bay receiving waters. This combination of factors represents a **potentially significant project and cumulative impact**.

**Mitigation 12-1.** The City shall require the applicant for each future project-facilitated discretionary development to comply where applicable with all current state, regional, and City water quality provisions. Where required under adopted San Francisco Bay Regional Water Quality Control Board (RWQCB) regulations, the City shall require applicants to (a) file with the RWQCB a *Notice of Intent* to comply with the Statewide General Permit for Construction Activities; (b) prepare and implement a project-specific Storm Water Pollution Prevention Plan (including an erosion control plan) if grading is involved; (c) implement a monitoring, inspection, and documentation program to assure the effectiveness of control measures, including post-construction measures; (d) obtain or comply with existing General Storm Water Discharge Permit(s) for Industrial Activities, where applicable; and (e) comply with the NPDES Phase II Non-Point Discharge program and the City's Stormwater Management and Discharge Control Ordinance (RMC section 12.22). Implementation of these requirements would reduce this impact to a **less-than-significant level**.

City LS

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

Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
<b>NOISE</b>				
<p><b>Impact 13-1: Potential Exposure of New, Project-Facilitated Residential, Commercial, Office, Retail, Public Facility, and Open Space Development to Excessive Environmental Noise.</b> Project-facilitated noise-sensitive development could be exposed to noise levels exceeding state- and City-adopted noise and land use compatibility standards. Project-facilitated noise-sensitive uses could also be exposed to vibration from sources such as BART and railroad trains. In addition, new noise-generating uses facilitated by the project may expose noise-sensitive uses to additional noise. Possible noise exposure exceeding State and City of Richmond standards represents a <b>potentially significant impact.</b></p>	S	<p><b>Mitigation 13-1.</b> New noise-sensitive uses developed adjacent to existing noise-producing uses shall be designed to control noise to meet the noise performance standards contained in section 9.52.100 of the Richmond Municipal Code. Noise studies are required in such circumstances to demonstrate compliance with these standards.</p> <p>To adequately mitigate potential noise impacts on future new residential uses, noise attenuation features shall be incorporated into the new construction to reduce interior noise to 45 L<sub>dn</sub> or less and exterior noise to 60 L<sub>dn</sub> or less for new single-family development and 65 L<sub>dn</sub> or less for new multi-family development. Multi-family residential development proposed where the L<sub>dn</sub> exceeds 60 dB would also be regulated by the State of California Building Code. The design for such projects must incorporate the necessary noise control treatments to reduce interior noise to 45 L<sub>dn</sub> or less in interior habitable spaces. Where the existing or projected exterior L<sub>dn</sub> is 65 dB or less, standard construction is normally sufficient. Where the existing or projected exterior noise level is 65 to 75 L<sub>dn</sub>, additional controls, such as sound rated windows, doors, and wall construction, may be necessary. A report shall be submitted with the building plans</p>	City	LS

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- NA = Not applicable

Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
Impacts	<p>for all Redevelopment Agency assisted residential projects proposed for location in existing or projected exterior noise environments of 60 dB L<sub>dn</sub> or greater, describing to City satisfaction the noise control measures that have been incorporated into the design to meet the 45 L<sub>dn</sub> interior noise limit.</p> <p>Exterior noise levels at project-assisted new public and institutional facilities, offices, and open space development shall be limited to an exterior noise level of 70 L<sub>dn</sub> or less. Permissible interior noise levels at these use types are a function of the use of the space and may require noise insulation features to be included in the design of the project to maintain an acceptable interior environment.</p> <p>Construction of sound walls may also be warranted to shield outdoor activity areas from roadway traffic noise. Barriers 10 to 16 feet high are normal along highways and railroad lines, and barriers 6 to 10 feet high are normal along local streets depending upon site planning and noise exposure. The final location and heights of barriers should be determined during development of project-specific site plans.</p> <p>Activities proposed by the redevelopment plan amendment include extension of sound walls.</p>		

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- NA = Not applicable

Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
<p><b>Impact 13-2: Project-Facilitated Construction Noise and Vibration.</b>                      Construction activities facilitated by the project could include site grading and preparation, building demolition, building modification and rehabilitation, construction of new buildings, and installation of utilities. The noise and vibration effects of these future construction activities would depend upon the amount of activity, the type of construction equipment</p>	<p>S</p>	<p>This aspect of the project may assist in mitigating noise impacts.</p> <p>Noise and vibration generated by railroad trains or BART should be studied on a project-by-project basis for vibration-sensitive land uses planned adjacent to these facilities.</p> <p>New noise-generating uses facilitated by the project will be subject to the noise performance standards established in section 9.52.100 of the Richmond Municipal Code. In accordance with Richmond General Plan policies, noise studies shall be conducted for proposed noise-generating uses to demonstrate compliance with these standards.</p> <p>Implementation of these standard measures would reduce this impact to a <b>less-than-significant level.</b></p>	<p>City</p>	<p>LS</p>
<p><b>Mitigation 13-2.</b> To reduce the noise impacts from project-related construction activities, the following measures shall be implemented as a condition of Redevelopment Agency assistance at all construction sites within the Merged Project Area:</p> <p>(1) <i>Construction Scheduling.</i> Limit noise-generating construction activity to between the hours of 7:00 AM to 7:00 PM, Monday</p>				

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- NA = Not applicable

Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
<p>Impacts</p> <p>used, the noise control measures used, the proximity to noise-sensitive activities, and the timing and duration of noise-generating or vibration-generating activities. Residential and other noise-sensitive uses located adjacent to project-facilitated construction activities could be exposed to noise and/or vibration levels that would interfere with normal activities. This would constitute a <b>potentially significant impact</b>.</p>	<p>through Friday, and 8:30 AM to 6:00 PM on Saturdays, Sundays, and national holidays (Richmond Municipal Code section 9.52.090).</p> <p>(2) <i>Construction Equipment Mufflers and Maintenance.</i> Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.</p> <p>(3) <i>Equipment Locations.</i> Locate stationary noise-generating equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction project site.</p> <p>(4) <i>Construction Traffic.</i> Route all construction traffic to and from the site via designated truck routes where possible. Prohibit construction-related heavy truck traffic in residential areas where feasible.</p> <p>(5) <i>Quiet Equipment Selection.</i> Use quiet construction equipment, particularly air compressors, wherever possible.</p> <p>(6) <i>Noise Disturbance Coordinator.</i> For larger construction projects, the City may choose to require project designation of a "Noise</p>		

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Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
Impacts	<p>Disturbance Coordinator" who would be responsible for responding to any local complaints about construction noise. The Disturbance Coordinator would determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and institute reasonable measures to correct the problem. Conspicuously post a telephone number for the Disturbance Coordinator at the construction site and include it in the notice sent to neighbors regarding the construction schedule. (The City should be responsible for designating a Noise Disturbance Coordinator and the individual project sponsor should be responsible for posting the phone number and providing construction schedule notices.)</p> <p>Implementation of these measures would reduce this impact to a <b>less-than-significant level</b>.</p>		
	<p><b>Impact 14-1: Construction-Related Air Quality Impacts.</b> Demolition or construction activities permitted and/or facilitated by the proposed project may generate construction-period exhaust emissions and fugitive dust that could temporarily but noticeably affect local air</p>	S	LS
		City and Agency	

AIR QUALITY

**Impact 14-1: Construction-Related Air Quality Impacts.** Demolition or construction activities permitted and/or facilitated by the proposed project may generate construction-period exhaust emissions and fugitive dust that could temporarily but noticeably affect local air

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Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
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Impacts  
 quality. This would represent a **potentially significant impact**

During **demolition** of existing structures:

- Water active demolition areas to control dust generation during demolition of structures and break-up of pavement.
- Cover all trucks hauling demolition debris from the site.
- Use dust-proof chutes to load debris into trucks whenever feasible.

During **all construction phases**:

- Water all active construction areas at least twice daily.
- Water or cover stockpiles of debris, soil, sand, or other materials that can be blown by the wind.
- Cover all trucks hauling soil, sand, and other loose materials, or require all trucks to maintain at least two feet of freeboard.
- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.

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 NA = Not applicable

Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
Impacts	<ul style="list-style-type: none"> <li>▪ Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites.</li> <li>▪ Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.</li> <li>▪ Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).</li> <li>▪ Enclose, cover, water twice daily, or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.).</li> <li>▪ Limit traffic speeds on unpaved roads to 15 miles per hour.</li> <li>▪ Install sandbags or other erosion control measures to prevent silt runoff to public roadways.</li> <li>▪ Replant vegetation in disturbed areas as quickly as possible.</li> </ul>		

The above measures are BAAQMD-identified "feasible control measures for construction emissions of PM<sub>10</sub>." Implementation of these

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- NA = Not applicable

Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
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measures would reduce the construction-related air quality impact of the project to a **less-than-significant level**.

**Impact 14-2: Long-Term Regional Air Emissions Increases.** Future traffic increases under the project-facilitated, Richmond General Plan-based development scenario would generate regional emissions increases which would exceed the applicable thresholds of significance for reactive organic gases (ROG), nitrous oxide (NO<sub>x</sub>), and particulate matter (PM<sub>10</sub>). This effect is considered to be a **significant project and cumulative impact**.

**Mitigation 14-2.** The City shall apply the following emissions control strategies where applicable to project-facilitated discretionary residential, commercial, and industrial development activities within the Merged Project Area in order to reduce overall traffic generation:

- Where practical, future development proposals shall include physical improvements, such as sidewalk improvements, landscaping, and the installation of bus shelters and bicycle parking, that would act as incentives for pedestrian, bicycle, and transit modes of travel.
- New or modified roadways should include bicycle lanes where reasonable and feasible.
- Where practical, employment-intensive development proposals (e.g., office, retail, R&D) shall include measures to encourage use of public transit, ridesharing, van pooling, use of bicycles, and walking, as well as to minimize single passenger motor vehicle use.

City SU

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 NA = Not applicable

Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
Impacts	<ul style="list-style-type: none"> <li>▪ Office land uses would generate home-to-work commute trips that are most amenable to Transportation Demand Management (TDM) programs. As a condition of approval, all Agency-assisted discretionary office development projects within the Merged Project Area of 10,000 square feet (approximately 25 employees) or greater should implement a TDM program, including vehicle use reduction strategies such as the following:                             <ul style="list-style-type: none"> <li>- a carpool/vanpool program, e.g., carpool ride-matching for employees, assistance with vanpool formation, provision of vanpool vehicles, etc.;</li> <li>- a transit use incentive program for employees, such as on-site distribution of passes and/or subsidized transit passes for local transit systems;</li> <li>- preferential parking for electric or alternatively fueled vehicles;</li> <li>- a guaranteed ride home program;</li> <li>- a flextime policy;</li> </ul> </li> </ul>		

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 NA = Not applicable

Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
Impacts	<ul style="list-style-type: none"> <li>- on-site child care;</li> <li>- showers and lockers for employees bicycling or walking to work;</li> <li>- secure and conveniently located bicycle parking and storage for workers; and/or</li> <li>- a parking cash-out program for employees (where non-driving employees receive transportation allowance equivalent to the value of subsidized parking).</li> </ul>	<ul style="list-style-type: none"> <li>▪ The City shall adopt policies and programs that will implement the "smart-growth" strategies of the Smart Growth Strategy/Regional Livability Footprint Project developed by the Association of Bay Area Governments and other regional agencies.</li> </ul>	<p>Implementation of these measures would assist in reducing the project-related and cumulative impacts on long-term regional ROG, NO<sub>2</sub>, and PM<sub>10</sub> emissions levels by perhaps 10 to 20 percent, but may not reduce these impacts to a less-than-significant level. The anticipated project and cumulative effects on ROG, NO<sub>2</sub>, and PM<sub>10</sub> emissions levels would therefore, as</p>

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Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
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already indicated in the City-certified 1994 General Plan and Zoning Ordinance Updates Program EIR (Air Quality Impact 4), represent a **significant unavoidable impact**.

**HAZARDOUS MATERIALS**

**Impact 15-1: Interference with Emergency Response Plans.** Additional development and redevelopment facilitated by the project could cause interference with emergency response plans, including possible evacuation in the Chevron refinery “flammable risk zone” that includes central Richmond portions of the Merged Project Area. This possibility represents a **potentially significant impact**.

**Mitigation 15-1.** Any Redevelopment Agency assistance to discretionary private development activity within the Chevron refinery “flammable risk zone” shall be accompanied by the appropriate disclosure information regarding associated implications and emergency instructional materials/information (stay-in-place measures, evacuation needs and routes, etc.). Successful implementation of this measure would supplement the City’s existing General Plan policies and implementation programs and would reduce this impact to a **less-than-significant level**.

**CLIMATE CHANGE**

**Impact 16-1: Project-Related and Cumulative Increase in Greenhouse Gas Emissions.** Growth facilitated by the proposed redevelopment plan amendment would result in a net increase in citywide carbon dioxide and other GHG emissions, even though land use and building rehabilitation activities encouraged

**Mitigation 16-1.** The proposed Plan Amendment would provide funding assistance towards planned transit improvements and would foster such additional greenhouse gas emission reduction measures as transit proximity, mixed-use, and integration of housing, civic, and jobs/housing proximity.

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- SU = Significant unavoidable impact
- NA = Not applicable

Impacts	Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
<p>by the plan amendment would be highly consistent with current consensus strategies to reduce transportation emissions (vehicle miles traveled) and industrial, commercial, and residential energy use-related GHG emissions over time. In particular, by facilitating development in the highly-urbanized Merged Project Area in accordance with the Richmond General Plan, the proposed plan amendment would serve to encourage infill development and reduce sprawl. Nevertheless, the redevelopment plan amendment is intended to facilitate an increase in the rate of commercial and industrial development in the Merged Project Area. Table 16.2 summarizes the results of an ICLEI-conducted Richmond emissions forecast for 2020, in comparison to estimated 2005 emissions levels. As shown, under a "business as usual" scenario, the Richmond greenhouse gas emissions level due to anticipated General Plan-based growth in the residential, commercial/industrial, transportation, and waste generation sectors is projected to increase by approximately 1,779,403 metric tons (30.4 percent). The commercial/industrial sector is projected to account for by far the largest portion, approximately 92 percent (1,639,702 metric tons) of the total increase, and most of this 2005-2020 commercial/industrial growth in Richmond is expected to occur within the</p>	<p>Potential Significance Without Mitigation</p>	<p>Redevelopment plan amendment-facilitated growth in the Merged Project Area would also be required to comply with the anticipated Energy and Climate Change element policies now being prepared by the City as part of its current General Plan update program. In the interim, project-related discretionary residential, commercial and industrial development approvals should be encouraged to incorporate an appropriate combination of the following greenhouse gas emissions reduction measures (from Table 16.3):</p> <ul style="list-style-type: none"> <li>▪ features in the project design that would accommodate convenient public transit;</li> <li>▪ adoption of a project design objective to achieve Leadership in Energy and Environmental Design (LEED) New Construction "Silver" Certification or better, in addition to compliance with California Code of Regulations Title 24 Energy Efficient Standards;</li> <li>▪ planting of trees and vegetation near structures to shade buildings and reduce energy requirements for heating and cooling;</li> <li>▪ preservation or replacement of existing onsite trees;</li> </ul>	<p>Mitigation Responsibility</p>	<p>Potential Significance With Mitigation</p>

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

Potential Significance Without Mitigation	Mitigation Measures	Mitigation Responsibility	Potential Significance With Mitigation
Impacts			
<p>Merged Project Area. By facilitating such additional commercial/industrial as well as residential growth in the Merged Project Area, the proposed redevelopment plan amendment would therefore be expected to result in a <b>significant project and cumulative global climate change impact.</b></p>	<ul style="list-style-type: none"> <li>▪ construction and demolition waste recycling;</li> <li>▪ tenant incentives to increase recycling and reduce generation of solid waste;</li> <li>▪ replacement of project exterior lighting, street lights and other electrical uses with energy efficient bulbs and appliances; etc.</li> </ul>	<p>Implementation of appropriate combinations of these mitigation measures in individual plan amendment-facilitated developments would substantially reduce project-related greenhouse gas emissions impacts. However, because the effectiveness of this mitigation program in reducing the project-related contribution to cumulative greenhouse gas emissions in the region cannot be reasonably quantified, it has been determined that the project, when combined with anticipated overall cumulative development in the region as a whole, would potentially produce a substantial net increase in greenhouse gas emissions, representing a <b>significant unavoidable project and cumulative climate change impact.</b></p>	

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

## 2.4 MITIGATION IMPLEMENTATION

For those mitigation measures identified in this EIR that are adopted as conditions of redevelopment plan amendment approval, a mitigation monitoring program will be formulated by City staff for use in verifying mitigation implementation. Implementation of most of the mitigation measures recommended in this EIR could be effectively monitored through normal City and Redevelopment Agency development review procedures. However, to satisfy CEQA (Public Resources Code section 21081.6), a documented record of mitigation implementation will be necessary. Chapter 20 of this EIR includes a suggested Mitigation Monitoring Checklist form for completion by the City at the Final EIR phase to meet the mitigation monitoring and reporting requirements of CEQA; i.e., to establish the "who, what, when, and how" aspects for each mitigation measure from the Final EIR.

## 2.5 SUMMARY OF ALTERNATIVES

For CEQA compliance purposes, Chapter 19 of this EIR identifies and discusses five alternatives to the proposed action:

- **Alternative 1: No Project--Existing Conditions.** The CEQA Guidelines require the specific alternative of No Project to "be evaluated along with its impact...to allow decision-makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project." The CEQA Guidelines require the No Project analysis to "discuss the existing conditions at the time the (EIR) notice of preparation is published...as well as what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans."

Pursuant to these requirements, the Alternative 1 (No Project--No Development) evaluation in this chapter compares the effects of the proposed project with existing conditions, and Alternative 2 below (No Project--Future Scenario Without Proposed Redevelopment Plan Amendment) compares the effects of the proposed project with "what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans" (CEQA Guidelines section 15126.6[e][2]).

- **Alternative 2: No Project--Future Scenario Without Proposed Redevelopment Plan Amendment.** This alternative compares the effects of the proposed project with what would reasonably be expected to occur in the foreseeable future under the City's current General Plan if the project were not approved. Under this alternative, the Agency's current redevelopment program would continue to be implemented under current fiscal and time limitations with no increase in the limit on the amount of bonded indebtedness that may be outstanding at any one time in the Merged Project Area (the "cap" would remain at the current \$150 million for the Added Area and \$250 million for the remaining Merged Project Area) with no increase in the tax increment cap of \$521.4 million to \$1.06 billion for the affected portions of the Merged Project Area and no associated update to the list of redevelopment projects, programs and activities that may be undertaken by the Agency in the Merged Project Area.
- **Alternative 3: Modified Redevelopment Assistance Emphasis.** This alternative would include a redevelopment plan amendment with an identical Merged Project Area, but with reduced Agency emphasis and expenditure on enhancement of commercial, retail, research and development (R&D), and industrial development opportunities; and a corresponding

increase in Agency emphasis and expenditure on assistance with the expansion and upgrading of affordable housing opportunities in the community.

- **Alternative 4: Increase Financial Caps by Lesser Amounts.** This alternative would include a redevelopment plan amendment with an identical Merged Project Area, but with a smaller increase in the combined limit on the principal amount of bonded indebtedness secured by tax increment revenue that may be outstanding at any time in the Merged Project Area, and a corresponding reduced overall program of redevelopment projects, programs and activities that may be undertaken by the Agency in the Merged Project Area.
- **Alternative 5: Alternative Merged Project Area Location.** In response to CEQA Guidelines section 15126.6(f)(2) (Alternative Locations), alternative locations for the Merged Project Area have been considered but rejected as infeasible, as explained in section 19.5 herein.

The CEQA Guidelines (section 15126[e][2]) stipulate, "If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." Due to the various complex and interconnected environmental issues associated with the identified impacts and mitigations, it is not possible to simply apply a score or ranking to each alternative. The various environmental issues must be evaluated for both their adverse and beneficial effects in relation to the project objectives. Based on the evaluation in this EIR of alternatives other than the two No Project alternatives, **Alternative 4: Increase Tax Increment Revenue Cap by Lesser Amount** would result in the least adverse combination of environmental impacts and beneficial effects, and would therefore be the "environmentally superior alternative." This conclusion is based on the following:

- (1) all environmental impacts would be potentially reduced compared to the proposed project;
- (2) the alternative would retain more of the proposed project's environmental benefits than any of the other identified alternatives;
- (3) the alternative would retain more flexibility in allocating tax increment revenue toward mitigating environmental impacts than would the Modified Redevelopment Assistance Emphasis alternative (Alternative 3); and
- (4) the alternative would partially attain the proposed project objectives.

However, this "environmentally superior alternative" would be substantially less effective in attaining the local economic development, blight elimination, and affordable housing objectives described in section 3.2, Project Objectives, of this EIR.



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### 3. PROJECT DESCRIPTION

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This EIR chapter describes the proposed redevelopment plan amendment actions or "project" addressed in this program EIR. As stipulated by the CEQA Guidelines, the project description has been detailed to the extent needed for evaluation and review of environmental impacts. In accordance with section 15124 (Project Description) of the CEQA Guidelines, this chapter describes (1) the location and boundaries of the project area, (2) the objectives sought by the proposed redevelopment plan amendment, (3) the redevelopment plan amendment-facilitated actions proposed to achieve these objectives, and (4) the project-related growth assumptions and environmental assessment time frame applied throughout this EIR.

The Redevelopment Agency is currently implementing redevelopment plans originally adopted between 1954 and 1975 for nine project areas. Since their plan adoptions, each of the nine Constituent Project Areas has been amended at various times. Six of the nine areas were amended between 1980 and 1999 to add territory. Amendments adopted by the Redevelopment Agency in 1999 to the redevelopment plans for these nine project areas provided for their fiscal merger to together comprise the Richmond Merged Redevelopment Project Area. The merger was adopted to allow the sharing of tax increment revenues from one Constituent Project Area with other Constituent Project Areas--i.e., to pool and distribute tax increment revenue as necessary to better facilitate redevelopment activities throughout the nine project areas.

Since their 1999 fiscal merger, these nine redevelopment project areas have been referred to individually as the nine "Constituent Project Areas," and are referred collectively to as the "Merged Project Area." A 2005 amendment to the "10-B Nevin" redevelopment plan added four new subareas (collectively, the 2005 Added Area) to the existing 10-B Nevin Constituent Project Area.

#### 3.1 PROJECT LOCATION

##### 3.1.1 Regional and Local Setting

The Merged Project Area is located in the City of Richmond. Richmond is located in western Contra Costa County, approximately 19 miles northeast of San Francisco, as illustrated on Figure 3.1. The city is bordered by the City of San Pablo and City of Pinole to the north, the City of El Cerrito to the east, the City of Albany (in Alameda County) to the south, and San Francisco Bay to the west.

Regional access to the Merged Project Area is provided by Interstate 80 and Interstate 580. Interstate 80 extends generally in a north-south direction through the eastern part of the city. Interstate 580 extends generally in an east-west direction through the southern part of the city to the Richmond-San Rafael Bridge, which provides access from Richmond to Marin County to the west. As shown on Figure 3.1, major local streets extending through or near the Merged Project Area include the Richmond Parkway, Giant Highway, Rumrill Boulevard, San Pablo Avenue (State Route 123), and 23<sup>rd</sup> Street, which all run in a generally north-south direction; Carlson

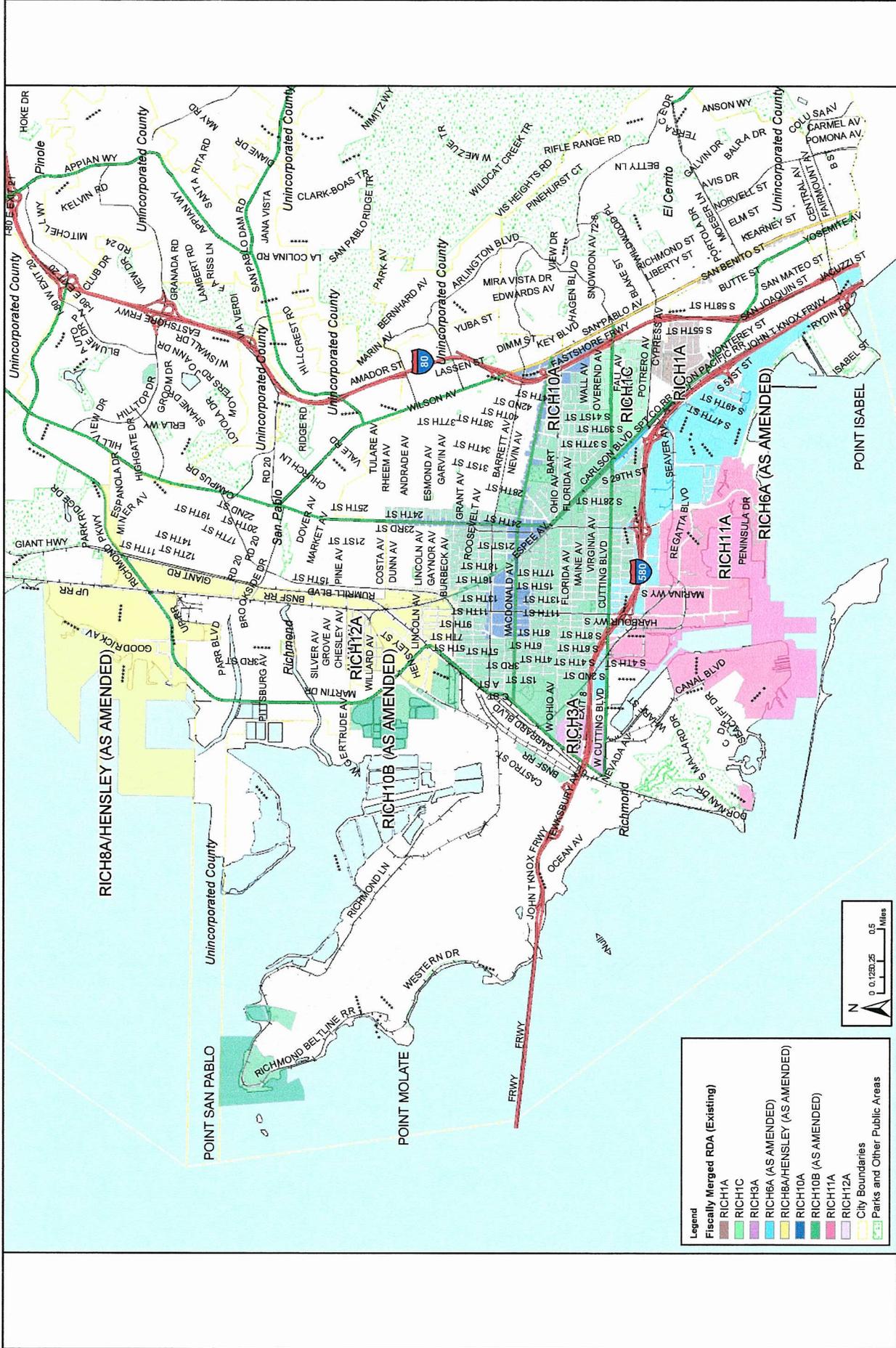


Figure 3.1  
REDEVELOPMENT PROJECT AREA

SOURCE: City of Richmond  
Wagstaff and Associates ■ Urban and Environmental Planners

Boulevard, which extends northwest-southeast through central Richmond; and Macdonald Avenue and Cutting Boulevard, which both run generally east-west from Interstate 80 through central Richmond.

### **3.1.2 Project Area Boundaries**

Figure 3.1 shows the location and boundaries of the Merged Project Area. The Merged Project Area consists of nine existing, fiscally merged redevelopment project areas in southern, central, northern, and western Richmond. The City of Richmond has previously adopted and the Richmond Redevelopment Agency is currently implementing redevelopment plans for these nine areas. Thus, the merged project area boundary configurations illustrated on the figure were previously determined by the Richmond Redevelopment Agency based on a combination of factors including the existence of blighting factors that, as required by section 33030 of California Redevelopment Law (CRL), "*...constitute physical and economic liabilities, requiring redevelopment in the interest of the health, safety, and general welfare of the people of [such] communities and the State.*"

As shown on Figure 3.1 and summarized in Table 3.1, the nine existing project areas that comprise the existing merged project area are as follows:

- (1) the existing 1-A Eastshore Area (approximately 137 total acres), located south of Potrero Avenue between Carlson Boulevard and Interstate 80;
- (2) the existing 1-C Potrero Area (approximately 150 acres), located north of Potrero Avenue between Carlson Boulevard and Interstate 80;
- (3) the existing 3-A Galvin Area (approximately 95 acres), located in southwestern Richmond in the vicinity of Interstate 580;
- (4) the existing 6-A Harbor Gate Area (approximately 750 total acres), located in southern Richmond in the vicinity of Interstate 580;
- (5) the existing 8-A Hensley Area (approximately 1,002 total acres), which has its southern boundary in the general vicinity of Pennsylvania Avenue and extends north generally along Rumrill Boulevard and Giant Highway, encompassing the area west of the Union Pacific railroad tracks in the vicinity of Goodrick Avenue;
- (6) the existing 10-A Downtown Area (approximately 281 acres), located in central Richmond in generally along Macdonald Avenue and South 23<sup>rd</sup> Street;
- (7) the existing 10-B Nevin Area (approximately 1,810 total acres), located in central Richmond generally north of Interstate 580 between Garrard Boulevard and Interstate 80;
- (8) the existing 11-A Harbour Area (approximately 1,105 total acres), located in southern Richmond south of Interstate 580 and generally west of Marina Bay Parkway; and
- (9) the existing 12-A North Richmond Area (approximately 19 acres), located east of the Richmond Parkway in the vicinity of Gertrude Avenue.

The proposed project, encompassing the nine existing fiscally merged Constituent Project Areas, involves approximately 5,348 acres.

Table 3.1  
**SUMMARY OF EXISTING FISCALLY MERGED CONSTITUENT PROJECT AREAS WITHIN  
 MERGED PROJECT AREA**

<u>Fiscally Merged Project Areas</u>	<u>Acres</u>	<u>Adopted</u>	<u>Existing Time Limit For Plan</u>	<u>Existing Time Limit for Tax Increment Receipt</u>	<u>Subject to Tax Increment Cap of \$521.4 Million?*</u>	<u>Last Date to Incur Bonded Indebtedness**</u>	<u>Existing Time Limit for Eminent Domain</u>
<b>1A</b> Eastshore	123	8/26/1957	1/1/2012	1/1/2022	Yes	No limit	7/13/2011
1999 Added Area	14	7/13/1999	7/13/2030	7/13/2045	No	7/13/2019	7/13/2011
<b>1C</b> Potrero	150	4/4/1960	1/1/2012	1/1/2022	Yes	No limit	7/13/2011
<b>3A</b> Galvin	95	2/28/1955	1/1/2012	1/1/2022	Yes	No limit	7/13/2011
<b>6A</b> Harbor Gate	118	11/8/1954	1/1/2012	1/1/2022	Yes	No limit	7/13/2011
1995 Added Area	616	6/26/1995	7/26/2026	7/26/2041	No	7/26/2015	7/13/2011
1999 Added Area	16	7/13/1999	7/13/2030	7/13/2045	No	7/13/2019	7/13/2011
<b>8A</b> Hensley	90.5	5/29/1960	1/1/2012	1/1/2022	Yes	No limit	7/13/2011
1980 Added Area	23.5	3/31/1980	3/31/2023	3/31/2033	Yes	No limit	7/13/2011
1999 Added Area	887	7/13/1999	7/13/2030	7/13/2045	No	7/13/2019	7/13/2011
<b>10A</b> Downtown	107	5/23/1966	1/1/2012	1/1/2022	Yes	No limit	7/13/2011
1999 Added Area	174	7/13/1999	7/13/2030	7/13/2045	No	7/13/2019	7/13/2011
<b>10B</b> Nevin	17	9/18/1972	9/18/2015	9/18/2025	Yes	No limit	7/13/2011
1999 Added Area	10	7/13/1999	7/13/2030	7/13/2045	No	7/13/2019	7/13/2011
2005 Added Area <sup>1</sup>	1783	7/12/2005	7/12/2035	7/12/2050	No	7/12/2025	7/13/2017
<b>11A</b> Harbour	964	6/9/1975	6/9/2018	6/9/2028	Yes	No limit	7/13/2011
1999 Added Area	141	7/13/1999	7/13/2030	7/13/2045	No	7/13/2019	7/13/2011
<b>12A</b> North Richmond	19	9/18/1972	9/18/2015	9/18/2025	Y	No limit	7/13/2011
<b>TOTAL</b>	<b>5,348</b>						

SOURCE: Richmond Community Redevelopment Agency, Seifel Consulting Inc., and Goldfarb & Lipman LLP.

\*Combined tax increment limit of \$521,400,000 applies to the portions of the project areas subject to the tax increment cap.

\*\*The project areas fiscally merged in 1999 have a combined bonded indebtedness limit of \$250,000,000, and the 10B Nevin 2005 Added Area has a bonded indebtedness limit of \$150,000,000.

### 3.2 PROJECT OBJECTIVES

The intent of the proposed redevelopment plan amendment is to provide a means for the Richmond Community Redevelopment Agency to continue its redevelopment activities and address remaining blight conditions in the Merged Project Area.

The objectives (or "General Goals") sought by the proposed redevelopment plan amendment are as follows:<sup>1</sup>

- the revitalization of areas suffering from economic hardship and underutilization;
- the redevelopment, replanning, and/or redesign of areas that are stagnant, impaired, or improperly utilized, which without redevelopment assistance could not be accomplished;
- the protection and promotion of sound development and redevelopment of blighted areas;
- the improvement of the general welfare of the citizens of the City by remedying adverse conditions through the implementation of corrective programs and activities;
- the installation of new or the upgrading of existing public improvements, facilities, and utilities in areas where public improvements, facilities, and utilities are deficient;
- the preservation, improvement, and expansion of the community's supply of housing, including opportunities for low- and moderate-income households; and
- smart growth that, with concern for long-term implications for the community and the region, focuses on coordinated, sustainable, and transit-oriented development designed to create more livable neighborhoods, stimulate economic activity, and provide more accessible land use patterns and efficient infrastructure investments.

The proposed amendment would permit the Redevelopment Agency to continue to implement blight elimination and economic revitalization activities within the merged project area through use of authority granted by the California Redevelopment Law (Part 1 of Division 24 of the State Health and Safety Code). Redevelopment Law may be applied in predominantly urbanized areas where blighted conditions currently exist which *"cannot be reasonably expected to be reversed or alleviated by private, enterprise or governmental action, or both, without redevelopment."* The proposed plan amendment would provide for implementation of a combination of continuing and updated redevelopment activities in the project area, including economic development programs, public infrastructure improvements, property rehabilitation assistance, circulation and landscaping improvements, land assembly and site development assistance, and affordable housing assistance.

As authorized by California Community Redevelopment Law, tax increment financing is the primary funding mechanism for redevelopment. Tax increment financing allows a redevelopment agency to receive a portion of future property tax revenue growth (or "tax increment") that arises from future development and associated increases in property value

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<sup>1</sup>Richmond Community Redevelopment Agency, Final Preliminary Report, Redevelopment Plan Amendment, August 2009, page III-3.

within the redevelopment area boundaries.<sup>1</sup> A portion of the property tax revenue growth is also forwarded in the form of state-mandated "pass-throughs" to the various other taxing entities, such as local school and fire districts, which continue to accrue property taxes within the project area.

After the pass-through revenues are forwarded to these other taxing entities, the remainder of the property tax revenue increment is allocated to the redevelopment agency to support the costs of implementing the redevelopment project. The redevelopment agency may use these future tax increments to pay costs directly or it may borrow funds or issue bonds that are supported by these future tax increment revenues.

### **3.3 PROPOSED REDEVELOPMENT PLAN AMENDMENT**

The redevelopment plan amendment proposes specific changes to the redevelopment program for the merged project area to:

- (1) increase the limit ("cap") on the amount of tax increment revenue that may be claimed by the Agency from the portions of the Merged Project Area subject to the current limit of \$521.4 million to a revised limit of \$1.06 billion;
- (2) increase the limit on the principal amount of bonded indebtedness secured by tax increment revenue from the project areas fiscally merged in 1999 that may be outstanding at any one time from the current 2005 Added Area of \$150 million and the current limit of \$250 million for the remaining Merged Project Area to a revised combined limit of \$1.61 billion;
- (3) extend the redevelopment plan time limit for eminent domain authority over non-residential properties to up to 12 years but no longer than the plan effectiveness limit for the Constituent Project Areas within the Merged Project Area that contain significant blight that cannot be eliminated without the use of eminent domain;
- (4) amend, restate, and consolidate the redevelopment plans for the nine Constituent Project Areas within the Merged Project Area into a single "consolidated redevelopment plan for the Richmond Merged Redevelopment Project Area (Merged Redevelopment Plan)." This Merged Redevelopment Plan would incorporate the applicable provisions from each of the current Constituent Redevelopment Plans;
- (5) consolidate the goals and objectives for each of the Constituent Redevelopment Plans that guide the Redevelopment Program's projects and activities that may be undertaken by the Agency in the Merged Project Area; and
- (6) update various text provisions to conform to the current requirements of the CRL.

The Plan Amendment will further several City goals and objectives in the Merged Project Area including stimulating economic development, creating jobs, addressing environmental problems,

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<sup>1</sup>Adoption of a redevelopment plan or plan amendment, and establishment of the tax increment funding mechanism, do not change the property tax rate payable by project area property owners, but instead reallocate to the Agency a portion of the property taxes arising from future growth in project area property values.

providing open space, fostering cultural development, improving the physical environment and transportation systems, and creating new affordable and mixed-income housing.

### **3.4 ANTICIPATED PROJECT ACTIONS**

The proposed redevelopment plan amendment program is intended to encourage and facilitate development, rehabilitation, and improvement in the merged project area consistent with the current and future policies of the City of Richmond General Plan. The Richmond Redevelopment Agency would assist the private sector by using its financial resources and administrative powers to help improve economic conditions and development viability of properties in the merged project area. The Agency activities would be expected to improve the economic base of the merged project area and the community as a whole.

#### **3.4.1 General Purposes and Actions**

The proposed redevelopment plan amendment would allow continuation of the following redevelopment-related purposes and actions:<sup>1</sup>

- Facilitate the elimination of blighting influences and the correction of deficiencies, including, but not limited to, abnormally high building vacancies; abandoned, deteriorated, and dilapidated buildings; underutilized land; depreciated property values; and deficient public improvements, facilities, and utilities.
- Assist with removal of structurally substandard buildings to permit the return of land to economic use through new construction.
- Facilitate rehabilitation of those structures that are culturally, historically, physically, and aesthetically worthy of rehabilitation, with emphasis on owner participation.
- Assist with the abatement of environmental deficiencies, including earthquake hazards, inadequate street and alley layout, incompatible land uses, inaccessibility, lots of inadequate size and shape, hazardous materials, and site contamination.
- Work with the private sector to stimulate private investment, thereby improving the City's economic health, tax base, and employment opportunities.
- Facilitate the assembly and disposition of land to achieve more productive and more appropriate land uses.
- Provide flexibility in redevelopment activities to respond readily and appropriately to evolving market conditions.
- Assist with the implementation of applicable specific plans.
- Encourage participation of residents, business persons, property owners, and community organizations in the redevelopment of the Merged Project Area and the community enhancement and economic development that will follow.

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<sup>1</sup>Richmond Community Redevelopment Agency, Final Preliminary Report, Redevelopment Plan Amendment, August 2009, pages III-3 through III-4.

- To the extent feasible, retain existing residents and protect cultural diversity.
- Provide public improvements needed to support other objectives of the Merged Redevelopment Plan, including but not limited to sanitary and storm sewer facilities, traffic control devices, utility upgrading, streetscape improvements, and recreational and community facilities. Such improvements may be in any part of the Merged Project Area, or beyond the Merged Project Area boundaries where found to be of primary benefit to the Merged Project Area.
- Enhance commercial, retail, industrial, research and development (R&D), and industrial development opportunities and increase in employment and economic development opportunities, by stimulating private investment.
- Support locally owned small businesses and local entrepreneurship.
- Enhance public transit opportunities to and within the Merged Project Area, to the extent feasible.
- Assist with the expansion and upgrade of housing opportunities in the community to alleviate blighting conditions and improve the housing stock in a manner consistent with the Housing Element of the General Plan and the provisions of California Redevelopment Law.
- Achieve the objectives described above in the most expeditious manner feasible.

### **3.4.2 Anticipated Programs and Activities**

The proposed redevelopment plan amendment would facilitate continued implementation of a range of redevelopment programs and activities in the Merged Project Area, including the following.<sup>1</sup>

(a) Planning, Property Acquisition, Site Preparation, and Toxic Remediation. This program would facilitate the planning and acquisition of properties in the Merged Project Area and also provide funding and other assistance for site preparation and remediation. The program would be coordinated with the commercial and industrial attraction, retention, expansion, and rehabilitation program (see below). The program would authorize redevelopment activities that would:

- Identify and assess underused commercial and industrial parcels and work with property owners to improve and reorganize facilities in order to attract new businesses or expand existing businesses, enhance property value, and create jobs on those sites.
- Facilitate the assembly, consolidation, and disposition of land to achieve more productive and more appropriate land uses and, if necessary, acquire strategic properties to meet redevelopment goals.
- Plan for the development of key sites and facilities and facilitate the location of compatible uses near the key sites.

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<sup>1</sup>Richmond Community Redevelopment Agency, Final Preliminary Report, Redevelopment Plan Amendment, August 2009, pages III-6 through III-15.

- Plan and locate an industrial park that will serve as an industrial buffer and, where appropriate, be a resource for non-conforming job shops currently located in residential areas.
- Assist with the removal or rehabilitation of unsafe, hazardous buildings or other substandard structures on key development sites to permit the return of property to economic use through new construction and rehabilitation.
- Offer, when necessary, assistance to land owners in assessing potentially hazardous materials on brownfield sites. Provide further assistance in planning and/or funding remediation of hazardous materials and contaminants on affected sites, such as at Terminal 4.
- Recruit and assist developers who can remediate and redevelop sites contaminated with hazardous wastes.
- Assist with the cleanup of hazardous materials (if indicated by brownfield studies and other City initiatives), subject to reimbursement from responsible parties if possible.
- For Agency-assisted projects, provide assistance to temporarily or permanently relocate business tenants displaced by new development or redevelopment.
- Work with private developers working in the area to provide local jobs as part of their community benefits package.

(b) Commercial and Industrial Attraction, Retention, and Expansion. The Redevelopment Agency would continue its commercial and industrial attraction, retention, and expansion program, which may include but would not be limited to activities that would :

- Assist with marketing of vacant parcels and buildings to attract businesses that meet local economic development objectives, including businesses serving various market segments of the community.
- Implement a program of business retention and recruitment efforts, including supporting the revolving loan fund to be used for business expansion and attraction and a business incubator program. Collaborate with other City programs to establish business incubator assistance.
- Pursue infill opportunities for commercial development and provide financial assistance for improving circulation and accessibility to infill sites.
- Assist in infrastructure and rehabilitation projects to create a favorable environment for commercial and industrial development.
- Develop design guidelines to ensure new retail spaces are viable and provide positive contributions to the community.
- Facilitate the development and expansion of commercial and industrial spaces for neighborhood-serving businesses and potential job creation.

(c) Commercial Rehabilitation. This program would finance a portion of the total costs of rehabilitation, façade improvement, and code compliance in existing commercial structures. It is designed to encourage existing property and business owners to substantially upgrade deteriorated storefronts, correct code violations, and renovate store interiors in order to improve existing business properties and encourage new, infill commercial development. This program would include but would not be limited to activities that would:

- Continue implementation of the rehabilitation program for commercial centers, such as along 23<sup>rd</sup> Street and Macdonald Avenue, including assistance for improvements to facades, signage, lighting, circulation, parking, and other consumer amenities, and expand the program to Cutting Boulevard.
- Encourage revitalization of existing businesses and vacant commercial space through activities such as provision of technical assistance, grants and low-interest loans, in collaboration with other City agencies and community-based organizations.
- Revitalize and/or acquire obsolete commercial and industrial buildings.
- Encourage operators of heavy industrial facilities to paint and/or screen their facilities.
- Encourage new nonresidential development on underutilized or unused sites.

(d) Business Development. The Redevelopment Agency would continue to engage in projects and activities to retain and assist existing small and medium-sized businesses and help reduce high business vacancies. This program also promotes entrepreneurship development programs, such as the business incubator program, and the Revolving Loan Fund, which is a community-based program providing loans to new and growing small businesses in targeted areas. The Revolving Loan Fund is committed to fostering local economic growth through the creation and retention of employment. As part of its business development efforts, the Agency would provide support to the Downtown Main Street Program. The Agency plans to expand the Business Development program to better serve small businesses throughout the Merged Project Area.

(e) Public Improvements. This program would involve upgrading existing aged and deteriorated infrastructure systems and constructing and installing new public improvements, which would support private sector development efforts. The program may include improvements to accessibility and circulation, streets, public transit, and storm water and wastewater systems and utilities, including activities that would:

- Assist with the construction and/or rehabilitation of public infrastructure and public facility improvements in order to stimulate development, such as the Transit Village.
- Repair, rehabilitate, install, and acquire public structures and amenities to help revitalize commercial and industrial areas.
- Facilitate improvements to off-site infrastructure and circulation systems providing access to and within the areas, including enhanced intersection improvements, public parking improvements, and unifying streetscape and landscaping.
- Develop and implement parking optimization strategies.

- Plan, facilitate, and participate in public improvements for public buildings and spaces.
- Assist City departments with the implementation of pedestrian and bike safety programs, including street and sidewalk improvements, traffic calming projects, and expansion or improvement of the local bike network.
- Provide assistance for improvements to railroad crossing protection, safety upgrades, and vehicular access.
- Provide fencing along railroad tracks, where needed.
- Provide needed safety enhancements to create more defensible spaces.
- Upgrade public utilities and place overhead utility lines underground whenever feasible.

(f) Beautification. This program would include physical improvements such as landscaping, street lighting, and street furniture along commercial corridors and in residential neighborhoods. The program may include but would not be limited to activities that would:

- Develop gateway plan and implement streetscape improvement plans with improved lighting, signage, public art, and landscaping, for areas such as along 23<sup>rd</sup> Street and Macdonald Avenue.
- Assist in the rehabilitation and seismic strengthening of those structures that are physically and aesthetically worthy of rehabilitation, with emphasis on owner participation. Provide funds for façade preservation and improvements.
- Expand and enhance code enforcement activities, where needed.
- Implement a graffiti abatement, trash removal, and street and sidewalk cleaning program.
- Implement improvements consistent with the Macdonald Avenue Economic Revitalization Plan.
- Provide funds for planning and for potential assistance toward construction of improved, landscaped street corridors.
- Provide public art throughout gateways in Richmond with specific emphasis on entrances affected by I-80 overpasses.

(g) Cultural Arts and Recreational Facilities Improvements. This program would support the creation, rehabilitation, and improvement of community facilities and historic buildings, parks and recreational fields, and trails to meet the current needs of residents and enhance public safety. The program may include but would not be limited to activities that would:

- Develop and renovate parks, including recreation facilities and community facilities located within the Merged Project Area.
- Set forth policies in partnership with other public agencies to provide open space in the community and improve programs at existing facilities. Potential improvements include

community access to the waterfront and assistance in completing the Bay Trail and Point San Pablo Shoreline.

- Assist with the landscaping and creation of trails on City rights-of-way adjacent to railroad tracks and in former railroad rights-of-way, such as the Richmond Greenway.
- Assist in the rehabilitation and seismic strengthening of those structures that are culturally and historically worthy of rehabilitation, with emphasis on owner participation. Provide funds for façade preservation and improvements.
- Encourage and provide assistance for cultural and public art throughout the Merged Project Area.
- Install historic markers and wayfinding and interpretive signage along commercial corridors and in neighborhoods.

(h) Affordable Housing. The Agency has established and would continue to establish a range of housing programs that seek to leverage federal, state, and private funding sources to develop high-quality, attractive, and affordable housing developments seeking a diverse population. The funds set aside for this Affordable Housing Program would be used in a flexible manner in order to respond to favorable development opportunities. The Agency would also leverage federal, state, and private funding sources to mitigate the impact of home foreclosures in the city.

The Agency would continue to promote development of a wide variety of affordable housing in order to enhance the vitality of the area and provide needed housing for the City. In particular, the Agency would continue to encourage mixed-use development, new housing development, rehabilitation of existing rental and ownership units, infill development, mixed-income development, and senior housing projects. The Agency would also leverage federal, state and private funding sources to mitigate the impact of home foreclosures within the City.

*(1) Owner-Occupied Units.* Due to the high per-unit cost of subsidizing owner-occupied housing for very-low-income households, the Agency would primarily seek to provide owner-occupied units for low- and moderate-income households. It is anticipated that sites for new construction projects would be primarily underutilized residential lots. The Agency would continue to assist private for-profit or non-profit developers with land write-downs and/or development subsidies. The affordability of owner-occupied units would be ensured through the recordation with the Agency or City of a deed or trust and resale restrictions against the property that provide for resale to qualified low- or moderate-income households or for recapture of the Housing Fund investment provided to the unit.

Another component of this program would be assistance for low- and moderate-income first-time homebuyers to purchase housing units. Subsidy would take the form of second mortgages to borrowers that may be used for down payment and first mortgage reduction.

*(2) Rental Housing.* The Agency's rental housing program emphasizes providing affordable housing to very-low-income, senior, disabled, or other special needs households. The program would continue to assist private for-profit or non-profit developers with land write-downs, predevelopment loans, development subsidies, or land leases. Affordability is enforced through deed restrictions and language incorporated into loan and lease documents. Most rental developments are expected to incorporate other funding sources such as federal low-income

housing tax credits or the United States Department of Housing and Urban Development (HUD) 202 program.

(3) *Proposed Activities.* Redevelopment Agency activities to preserve, improve, and increase the affordable housing supply may include actions to:

- Acquire land or building sites.
- Improve land or building sites with on-site or off-site improvements to the extent permitted by Community Redevelopment Law. Provide assistance for the remediation of contaminated sites, where necessary.
- Donate land to private or public persons or entities.
- Finance insurance premiums pursuant to Community Redevelopment Law section 33136.
- Construct buildings or structures.
- Provide subsidies to, or for the benefit of, persons or families of very low, low, or moderate income.
- Pay principal and interest on bonds, loans, advances, or other indebtedness, or pay financing or carrying charges.
- Require the integration of affordable housing sites with sites developed for market-rate housing.
- Assist the development of housing by developers.
- Provide planning and financial assistance toward a range of supportive housing options for the community's low-income aging population. Assist City department with programs to support senior rental housing.
- Provide technical and funding assistance to non-profit organizations that commit to preserving the long-term affordability (a minimum of 55 years) of any at-risk affordable rental development that may be purchased from a for-profit owner.
- Undertake rehabilitation programs for older units posing a health hazard.
- Provide planning and financial assistance toward supportive and/or transitional housing programs for other special needs populations in the community.
- Assist land owners with planning affordable infill development where appropriate.
- Provide opportunities for housing rehabilitation for very low-, low-, and moderate-income home owners to maintain and repair their homes.

### **3.5 PROJECT-RELATED GROWTH ASSUMPTIONS AND ENVIRONMENTAL ASSESSMENT TIME FRAME**

In some portions of the Merged Project Area, existing authorized time limits for undertaking redevelopment activities extend out to 2035 and existing authorized time limits for receiving tax increment extend out to 2050 (see Table 3.1). However, for purposes of "worst case" environmental impact analysis, it is assumed in this EIR that the major portion of the actual physical redevelopment activities associated with the redevelopment program would be successfully completed over the next approximately 20 years, or by 2030, stimulating increased economic development and an increased rate of General Plan-permitted growth within the Merged Project Area over that period. As stipulated by California Redevelopment Law, the character of that economic development and urban intensification (e.g., land use type, land coverage, building height, etc.) would continue to be guided by the policies set forth in the current and future adopted City of Richmond General Plan and City of Richmond Zoning Ordinance.

For purposes of conservative ("worst case") environmental impact assessment, the impact analyses in chapters 4 through 16 of this EIR are based on the assumption that, with adoption of the proposed redevelopment plan amendment, up to the full development capacity of the Merged Project Area under the adopted policies of the current General Plan, and associated environmental impacts, would be mostly realized by the year 2030 through redevelopment-facilitated revitalization and infill. The potentially significant environmental impacts of this project-facilitated "worst-case" growth scenario, and associated mitigation needs, are described in chapters 4 through 16 of this EIR.<sup>1</sup>

### **3.6 REQUIRED PROJECT DOCUMENTATION AND APPROVALS**

#### **3.6.1 Required Documentation**

Implementation of the project will require preparation, presentation, and official acceptance of the following five documents describing the proposed redevelopment plan amendment program and its effects:

- a. The Preliminary Report, which describes the need for the redevelopment plan amendment, the Merged Project Area boundaries and activities proposed, the anticipated effect of the proposed activities in alleviating blight and related economic problems in the Merged Project Area, and a preliminary assessment of financing methods for the proposed activities;
- b. The Environmental Impact Report, including this Draft EIR as well as a Final EIR document and associated statement of findings, which describes the environmental consequences of the proposed redevelopment plan amendment adoption and the associated mitigation measures necessary to reduce any potentially significant adverse impacts to less-than-significant levels;

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<sup>1</sup>Please note that the year 2030 development scenario used in this EIR for "worst case" environmental impact assessment purposes may be different from the development estimates on which the fiscal analysis in the Preliminary Report for the redevelopment program are based. That analysis assumes a smaller, more fiscally conservative growth scenario so that estimated revenues are conservative rather than overstated (i.e., a "worst case" economic scenario with a smaller rate of revitalization and growth, and corresponding slower rate of tax increment growth).

- c. The Amended and Restated Redevelopment Plan, a legal document that sets forth the Redevelopment Agency's powers and authorities in the Merged Project Area; and
- d. The Report to the City Council, which describes the need to establish the redevelopment plan amendment program and the process followed by the Redevelopment Agency toward adoption of the program, and the Implementation Plan, which describes the specific goals and objectives of the Redevelopment Agency and specific redevelopment projects proposed by the Redevelopment Agency, including the program of actions and expenditures proposed for the first five years of plan amendment implementation. The implementation plan also describes how these projects will alleviate the documented blighted conditions in the Merged Project Area, and indicates how the Redevelopment Agency will expend its housing set-aside fund. The Implementation Plan must be updated every five years.

### **3.6.2 Required Approvals and Public Review**

The Richmond City Council and the Richmond Redevelopment Agency will hold public hearings on the proposed 2009 Richmond Redevelopment Plan Amendment Program. The results of this public review process will be considered by the City Council and Redevelopment Agency before adoption of the program. Implementation of the program would require completion of the following specific public review and jurisdictional approval procedures:

- a. Distribution of the Preliminary Report, Draft Amended and Restated Redevelopment Plan, and Draft Environmental Impact Report to all taxing agencies affected by the project, and to concerned individuals and organizations, for review;
- b. Preparation of the proposed Report to the City Council and proposed Final Amended and Restated Redevelopment Plan, with presentations to and public hearings before the Richmond Planning Commission, Redevelopment Agency, and City Council; and
- c. Certification of the Final EIR and adoption of the Amended and Restated Redevelopment Plan by the Richmond City Council, based on consideration of the information contained in the certified Final EIR, Final Report to the City Council, related written comments and oral testimony received from concerned individuals and organizations, and all other evidence for and against the proposed redevelopment program.

### **3.7 INTENDED USES OF THE PROGRAM EIR**

The City is acting as the CEQA-defined Lead Agency<sup>1</sup> for all environmental documentation and procedural requirements with respect to the proposed redevelopment program. The Redevelopment Agency would be a Responsible Agency responsible for approving the proposed redevelopment plan amendment and carrying out the redevelopment program. This EIR is an informational document designed to inform the Richmond City Council, the Richmond Redevelopment Agency, the Richmond Planning Commission, and the general public of the environmental consequences of the proposed redevelopment plan amendment program. This EIR has been prepared to serve as the CEQA-required environmental documentation for use by the City and Redevelopment Agency in their consideration of the proposed redevelopment plan amendment and various City and Redevelopment Agency actions that would be necessary to implement the amended plan (e.g., consideration of future, individual public and private

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<sup>1</sup>See chapter 1, Introduction, for definitions of "Lead Agency" and "Responsible Agency."

development projects proposed within the Merged Project Area boundaries, consideration of associated rezoning requests, etc.).

This program EIR is intended to be used as the baseline "first-tier" CEQA document for environmental review of subsequent public and private improvements assisted by the Redevelopment Agency in the Merged Project Area, as well as for future land use changes in the Merged Project Area that may be facilitated by the redevelopment program. These subsequent future activities would be examined in the context of the baseline documentation contained in this program EIR to determine whether additional, more focused environmental documentation (such as a mitigated negative declaration or focused subsequent or supplemental EIR) would be required. (See Appendix 22.1 of this EIR for a further explanation of the "program EIR" purpose and application.)

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## 4. LAND USE AND PLANNING

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This EIR chapter describes the existing mix of residential, commercial, industrial, institutional, recreational and open space land uses in and around the project area; applicable City land use policies and regulations; and the potential land use impacts of the project.

### 4.1 SETTING

#### 4.1.1 Regional and City Context

The City of Richmond encompasses approximately 35 square miles in western Contra Costa County. Most of Richmond is already urbanized. Residential areas are located throughout the city, with higher densities located west of I-80, including the central area, and lower densities located east of I-80. The city's major commercial and office development areas include central Richmond, Hilltop and Marina Bay. Industrial uses are concentrated along the Richmond shoreline and San Pablo Peninsula. Many areas of the city have mixed residential, commercial, and industrial land uses.

#### 4.1.2 Existing Land Use in the Project Area

As discussed in chapter 3, Project Description, the Merged Project Area encompasses approximately 5,348 acres in northern, central, and southern Richmond, portions of the western tip of the San Pablo Peninsula, and a portion of the Hilltop area (see Figure 3.1). Existing land use characteristics within the Merged Project Area may be generally described by subarea, as follows.

(a) Central Richmond. The central Richmond portion of the Merged Project Area is generally bounded by Interstate 580 on the south, Interstate 80 on the east, Garrard Boulevard/Richmond Parkway on the west, and the San Pablo city limits on the north. As shown on Figure 3.1, this subarea contains all of Constituent Project Area 1-A, most of 1-C, all of 3-A, all of 10-A, and most of 10-B. Central Richmond also includes the City-designated Iron Triangle planning area and portions of the Pullman and Cortez/Stege/Coronado planning areas. Land use patterns are firmly established in central Richmond, as most of the area has been developed. This portion of the Merged Project Area contains a mix of low-, medium- and high-density housing, with some public uses (e.g., City offices, parks), numerous pockets of commercial use, and an area of light industrial use (i.e., near the railroad tracks).

(b) Southern Richmond. The southern Richmond, located generally south of Interstate 580 in the vicinity of Canal Boulevard, Harbour Way South, Marina Bay Parkway, and the Point Isabel Regional Shoreline. As shown on Figure 3.1, this subarea contains Constituent Project Areas 6-A and 11-A. Land uses in southern Richmond include many of Richmond's key maritime facilities, including marine terminals and associated cargo handling, auto loading and unloading, Port of Richmond container handling terminals, associated near-dock intermodal rail facilities,

and other port-related uses. Southern Richmond also contains the Marina Bay and other housing areas, local and regional parks, and commercial office uses.

(c) Western Richmond. The western Richmond portion of the Merged Project Area includes the city generally west of Garrard Boulevard and north of I-580, and extending north generally along 13<sup>th</sup> Street/Rumrill Boulevard and Giant Highway to Richmond Parkway. As shown on Figure 3.1, this subarea contains roughly half of Constituent Project Area 8-A, all of 12-A, and a portion of 10-B. Land use in western Richmond is predominantly industrial, including heavy and light industry, warehousing and distribution, bulk storage, and vehicle storage.

(d) Point San Pablo. This portion of the Merged Project Area includes two subareas of Constituent Project Area 10-B at the northwestern tip of the San Pablo Peninsula: the Terminal 4 subarea and the Point San Pablo Yacht Harbor subarea. (The Point Molate Navy Depot site is located approximately one mile south these subareas, on the northwest shoreline of the peninsula.)

*(1) Terminal 4 Subarea.* The Terminal 4 subarea encompasses the Port of Richmond's Terminal 4. The terminal is now idle. The Terminal 4 subarea lies two miles north of the Richmond-San Rafael Bridge (I-580). Directly to the south are the Chevron refinery, tank farm, and marine terminal (the Chevron Long Wharf). The subarea has access from Western Drive, a single-lane paved road. The mostly hilly terrain of the subarea is level at the shoreline, rising steeply from the bay shorelines into rolling hills.

*(2) Point San Pablo Yacht Harbor Subarea.* The Point San Pablo Yacht Harbor subarea encompasses the existing Point San Pablo Yacht Harbor within the flat, bayside portion of the subarea, and undeveloped hilly terrain in the southern portion of the subarea which rises steeply above the shoreline. The yacht harbor is privately owned and operated, and includes approximately 120 berths, a restaurant, accessory buildings, storage yards and parking. The subarea has access from the west via Western Drive, a single-lane, privately-owned roadway extension.

(e) Northwestern Richmond. This subarea of the Merged Project Area includes the portion of northern Richmond extending north from Richmond Parkway, generally along Goodrick Avenue to the southern boundary of Point Pinole Regional Shoreline. As shown on Figure 3.1, this subarea of the Merged Project Area contains the other half of Constituent Project Area 8-A. The subarea contains industrial and commercial uses and vacant land.

(f) Hilltop Area. This portion of the Merged Project Area is located south of Hilltop Mall Road at Shane Drive in the Hilltop area in northern Richmond. As shown on Figure 3.1, this subarea of the Merged Project Area includes a small portion of Constituent Project Area 1-C. The subarea is within the area of Richmond located north of the City of San Pablo, west of I-80, and east of San Pablo Avenue. The master planned Hilltop area represents one of the city's major commercial and office use concentrations, including the Hilltop Mall regional shopping center and peripheral commercial development surrounding the mall.

(g) Areas East of Interstate 80. This subarea of the Merged Project Area is generally bounded by I-80 to the west, Barrett Avenue to the north, Cutting Boulevard to the south, and the city limits to the east. The subarea is comprised of the east portion of Constituent Project Area 10-A, and mainly contains commercial uses.

### **4.1.3 Identified Land Use Problems and Deficiencies in the Project Area**

The Richmond Community Redevelopment Agency has identified a range of existing land use and land use-related problems and deficiencies in the Merged Project Area, including (a) deteriorated residential, retail, and industrial buildings that are unsafe or unhealthy places for people to live or work; (b) buildings that are functionally obsolete because they do not meet building code requirements, do not have modern building configurations, or otherwise do not comply with current development standards; (c) depreciated or stagnant properties; (d) impaired values due to hazardous waste; (e) high crime rate; (f) lack of essential neighborhood-serving uses, such as banks and pharmacies; (g) a large number of businesses (e.g., those with liquor licenses) that have caused public safety problems; and (h) inadequate public improvements, including poor street conditions, impaired circulation and accessibility, public transit deficiencies, inadequate sewage and drainage infrastructure, and inadequate parks and open space.<sup>1</sup>

## **4.2 PERTINENT PLANS AND POLICIES**

### **4.2.1 City of Richmond General Plan**

Under California Community Redevelopment Law, all activities undertaken by a redevelopment agency, including all development activities facilitated by a redevelopment plan or redevelopment plan amendment, must be consistent with the goals and policies of the community's general plan. The existing and future adopted City of Richmond General Plan land use designations, goals, policies and guidelines, as well as all other applicable adopted General Plan goals, policies and guidelines, have been expressly incorporated into the proposed redevelopment plan amendment and would govern all development actions set forth in the plan amendment.

The currently-adopted Richmond General Plan land use designations, statements, and policies, that will govern Plan Amendment-facilitated redevelopment activities and growth-inducing effects are described in sections (a) through (c) below.

The City is currently in the process of preparing a comprehensive General Plan update. On Thursday, August 6, 2009, the City of Richmond Planning Commission held a public meeting to take comments on the draft version of the new General Plan.

The draft new General Plan represents the culmination of a comprehensive community planning process that started in February 2006. It describes Richmond's vision for the future and how that vision will be achieved through City policies over the next two decades.

Upon adoption, the policies of the new General Plan will supersede those of the current General Plan assumed in this EIR; however, the increment of growth between now and the year 2030 that would be permitted by the General Plan update is not expected to deviate substantially from the levels of Plan Amendment-related and cumulative growth assumed in this EIR. The framework of currently-adopted General Plan policies adopted for the purpose of avoiding or mitigating environmental effects, which are referenced throughout this EIR, is expected to be reinforced and expanded upon in the new General Plan, resulting in General Plan-governed

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<sup>1</sup>Richmond Community Redevelopment Agency, Final Preliminary Report, Redevelopment Plan Amendment, August 2009, page II-77.

growth characteristics that will result in degrees of environmental impact less than anticipated in this EIR under the current General Plan.

Meanwhile the current City of Richmond General Plan Land Use Element, as adopted in August 1994 and as revised through May 1998, continues to play a central planning role in correlating all city land use issues, goals, and objectives into one set of development policies. The *Land Use Element* includes a Land Use Map and an associated set of land use designations, goals, policies, and guidelines. Current adopted Land Use Map designations for the Merged Project Area are summarized below, followed by a listing of goals, policies, and guidelines from the *Land Use Element* and other General Plan elements that are particularly relevant to consideration of the proposed redevelopment plan amendment and its land use impacts.

(a) General Plan Land Use Map. Current adopted General Plan Land Use Map designations for the Merged Project Area are described below.

(1) *Central Richmond.* Adopted General Plan Land Use Map designations for central Richmond largely reflect the existing land use pattern. They include Low Density Residential (5 to 9 dwelling units per acre), Medium Density Residential (9 to 28 dwelling units per acre), and High Density Residential (28 to 43 dwelling units per acre); City Center (government, financial, general office, institutional, and medium- to high-density residential, including mixed use); General Commercial (thoroughfare and freeway-oriented commercial, business services, restaurants, retail, auto sales and repair, plant nurseries, plumbing, hardware, etc., mixed with some residential use); Neighborhood Retail (convenience retail and services); Light Industry (permitting uses allowed under the Industrial/Office Flex category, plus warehousing and distribution, commercial nurseries, and related uses "which have limited external on the surrounding area"); Recreation Lands (encompassing existing community parks and recreational facilities); Public and Institutional (including schools, public offices, libraries and hospitals); and Preservation/Resource Areas.

(2) *Southern Richmond.* Adopted General Plan Land Use Map designations for southern Richmond include Recreation Lands; Preservation/Resource Areas; Low, Medium, and High Density Residential; Water Related Commerce and Commercial Recreation; General Commercial; Heavy Industry; Light Industry; Industrial/Office Flex; and Port/Marine Terminal/Ship Repair.

(3) *Western Richmond.* Adopted General Plan Land Use Map designations for western Richmond are predominantly Light Industry and Heavy Industry. The Heavy Industry category provides for a wide variety of industrial uses, including but not limited to oil refining, storage yards, warehousing and distribution, co-generation plants, manufacturing and other "heavy" industrial use types. Commercial nurseries are also allowed within the Heavy Industry category. Western Richmond also contains smaller areas designated Low Density Residential, Medium Density Residential, Neighborhood Retail, General Commercial, Public and Institutional, Recreation Lands, and Preservation/Resource Areas.

(4) *Point San Pablo.* Adopted General Plan Land Use Map designations for Point San Pablo include Heavy Industry, Port/Marine Terminal/Ship Repair, Recreation Lands, Preservation/Resource Areas (open space and habitat preservation), and Water Related Commerce and Commercial Recreation (specialized uses capitalizing on shoreline locations, most often marinas) for the existing Point San Pablo Yacht Harbor area.

(5) *Northwestern Richmond.* Adopted General Plan Land Use Map designations for northwestern Richmond include Light Industry, Industrial/Office Flex, Recreation Lands, Preservation/Resource Areas, and Other Types of Open Space.

(6) *Hilltop Area.* The adopted General Plan Land Use Map designation for the Hilltop portion of the Merged Project Area is Regional Office and/or Shopping.

(7) *Areas East of Interstate 80.* For the portion of the Merged Project Area generally bounded by I-80 to the west, Barrett Avenue to the north, Cutting Boulevard to the south, and the city limits to the east, the adopted General Plan Land Use Map designation is General Commercial. For the area generally bounded by I-80 to the west, Central Avenue to the north, and the city limits to the south and east, the General Plan Land Use Map designation is Regional Office and/or Shopping.

(b) Pertinent General Plan Policies. The following applicable policies from the City's currently-adopted General Plan *Land Use Element*, in governing all project-related redevelopment activities and project-related development, would serve to mitigate associated adverse land use impacts:

***Form and Appearance:***

- *Encourage commercial and industrial facilities to enhance and complement the surrounding areas. (Policy LU-B.1)*
- *Accommodate heavy industrial uses in large areas buffered from major arterials and adjacent uses. (Policy LU-B.2)*
- *Locate light industrial and industrial/office flex uses so as to ensure compatibility between the industrial operations and other activities and to enhance the character of the district, community and environment in which they are located. (Policy LU-B.3)*
- *Ensure that new industrial developments do not detract from the aesthetics of an area. (Policy LU-C.3)*
- *Give high priority to preserving and enhancing the potential amenities of the shoreline's variety of edges and the landmark character of the regional landscape. (Policy LU-E.1)*

***Residential Areas:***

- *Encourage the conversion of long-term vacant commercial and light industrial space into live/work spaces. (See related Community Facilities Policy CF-K.3) (Policy LU-J.2)*
- *Encourage the infill of housing on parcels within the multi-family residential neighborhoods at a density appropriate to an urban area and which can be efficiently served by public transit, utilities, and services. (Policy LU-K.1)*
- *Promote private land assembly of smaller parcels to the extent that they increase design flexibility in the intensification or rehabilitation of existing neighborhoods. (Policy LU-K.2)*

- *Retain, to the extent practical, the grain of existing single-family residential neighborhoods by encouraging small-scaled infill projects that avoid disruption of the existing fabric. (Policy LU-K.3)*

**Commercial Areas:**

- *Reinforce existing and future regional shopping/office centers by encouraging the locating of complementary uses within the area. (Policy LU-L.4)*
- *Revitalize existing commercial activity areas through commercial and residential rehabilitation and by encouraging new development. (Same as Economic Development Element Policy ED-E.1.) (Policy LU-M.1)*

**Industrial Areas:**

- *Use established standards to limit industrial activities which may be objectionable due to odors, noise, fumes or other emissions. (Policy LU-O.5)*
- *Use established standards to limit industrial activities that may endanger human health and may cause damage to the environment. (Same as Safety Element Policy SF-A.16) (Policy LU-O.6)*
- *Avoid land uses that place residential dwellings with "heavy" industrial and maritime uses. (Same as Noise Element NE-A.4.) (Policy LU-O.7)*
- *Continue to explore ways of modernizing and renovating the port and marine terminal facilities. (Same as Economic Development Element Policy ED-B.5) (Policy LU-O.8)*
- *Reserve certain segments of the shoreline having access to navigable water for marine terminals and closely associated uses. (Same as Economic Development Policy ED-B.7) (Policy LU-O.10)*

It is not expected that the goals and policies listed above will change substantially with the anticipated update of the General Plan now underway.

(c) Area-Specific Guidelines. The adopted Richmond General Plan also designates a number of individual planning areas within the community, and sets forth specific land use "guidelines" for those areas. Those designated planning areas that fall within or overlap the Merged Project Area, and pertinent associated General Plan "guidelines" that would influence the physical characteristics and land use impacts of plan amendment-facilitated development are described below.

**Shoreline Areas:**

The western Point San Pablo portion of the Merged Project Area, including the Terminal 4 and Point San Pablo Yacht Harbor subareas, includes an important segment of the city's San Pablo Bay shoreline and falls within the Richmond General Plan-designated "West Shoreline" planning area. The southern portion of the Merged Project Area includes parts of the General Plan-designated "South Shoreline" area, including parts of Point Isabel, Marina Bay, and the Santa Fe Channel. The western and northwestern portion of the Merged Project Area partially

overlaps the General Plan-designated "North Shoreline" area. The following associated General Plan "guidelines" would influence the physical characteristics and land use impacts of plan amendment facilitated development in these shoreline areas:

Shoreline--General:

- *Develop Richmond's shoreline potential for residential, commercial and recreational uses as well as for port/maritime and industrial uses. (Land Use Element, Shoreline General Guideline 3)*
- *Encourage expansion and improvement of existing marina facilities throughout the Shoreline Area. (Land Use Element, Shoreline General Guideline 6)*

West Shoreline:

- *Reserve shoreline sites for those commercial and commercial recreation uses that clearly benefit from location on the shoreline and proximity to public recreation facilities and public access areas. (Land Use Element, West Shoreline Guideline 4)*
- *Support the upgrading and improvement of the Point San Pablo Yacht Harbor in keeping with its value as a shoreline commercial recreation facility and its proximity to other public recreation facilities and public access areas. (Land Use Element, West Shoreline Guideline 10)*

South Shoreline:

*Point Isabel:*

- *Consider multiple use of the vacant portion of the Stege Sanitary District property, including provisions for public recreation. (Land Use Element, Point Isabel Guideline 2)*
- *Designate the marsh and wetland areas between Pt. Isabel and Marina Bay as a preservation area. (See Open Space and Conservation Map and Wetland and Marsh Area Map, Technical Appendix for the Richmond General Plan). (Open Space and Conservation Element, Point Isabel Guideline 10)*
- *Protect open water, mudflats and all tidelands to the maximum extent feasible. Discourage filling dredging, and all development that would have a significant adverse impact on the biological productivity or aesthetic character of the physical features of these areas. Any development which does adversely impact the biological productivity or aesthetic character of open water, marsh, mudflat, or tideland should provide mitigation measures to offset the detrimental impact... (Open Space and Conservation Element, Point Isabel Guideline 11)*

*Marina Bay:*

- *Continue to promote/permit the development of a variety of land uses as specified...in the portion of the Marina Bay Area that is included in the Marina Bay Development Agreement area.. (Land Use Element, Marina Bay Guideline 1).*

- *Continue to develop and provide for...public open space areas in the Marina Bay basin area... (Community Facilities Element, Marina Bay Guideline 1)*
- *Designate the small marsh adjacent to the bayside shoreline near the southeastern boundary of the Marina Bay Area as a wildlife habitat and incorporate into the beach proposed along the shoreline. Establish measures in the design of the shoreline that will protect the marsh area from unrestricted public use (See Open Space and Conservation Map). (Open Space and Conservation Element, Marina Bay Guideline 1)*
- *Permit, consistent with the adopted design guidelines and criteria specified in the Appearance and Design policies and the fill policies of the Bay Plan and McAteer-Petris Act, fill in the Marina Bay Area for the following: berthing slips, structures which house facilities necessary for the operation and maintenance of small craft vessels, such as fuel docks, sewage pumping docks and boat hauling facilities; breakwaters, rip rap or other improvements necessary to control tidal action into the basin, improve shoreline appearance and provide public access; commuter ferry; and water-oriented commercial uses such as restaurants and public assembly uses. (Open Space and Conservation Element, Marina Bay Guideline 5)*
- *Permit fill for water-oriented commercial recreation and public assembly uses only when:*
  - a. *the fill is on pile-supported structures or is cantilevered over the water;*
  - b. *the fill is the minimum necessary;*
  - c. *the fill provides substantial public access and new bay surface area, at least equal to the fill area used for water-oriented commercial recreation and public assembly;*
  - d. *the structures for which fill is to be used are located substantially on land; and*
  - e. *an area of solid Bay fill, pile-supported structures or piers equal to or greater than the area of new fill is removed within the area covered by this policy document.*

*Santa Fe Channel Area:*

- *Develop and preserve waterfront land around the Santa Fe/Harbor Channels for marine terminal and water-related industrial uses and dredge or deepen any channel that limits marine terminal or water-related industry that is economically and environmentally acceptable. (Comment: This policy applies only to the Harbor Channel, the Ford Channel and Point Potrero Reach since the Marina Bay basin required significant dredging and filling.) (Land Use Element, Santa Fe Channel Guideline 1)*
- *Retain a port priority use area and designate a "Richmond ancillary port use zone" consisting of + 20 acres east of Harbour Way South, pending completion of a comprehensive analysis of regional port needs regarding "ancillary use zones." (Land Use Element, Santa Fe Channel Guideline 2)*
- *In considering future development, provide that:*

- a. *Where BCDC has review authority over specific uses or development within the "Richmond ancillary port use zone," and a non-port related use or development is proposed, BCDC will allow either interim non-port uses that are readily displaceable if the area is needed for marine terminals or directly-related ancillary port activities and that comply with the San Francisco Bay Plan.*
  - b. *When specific development providing for long-term marine terminal or port-related uses occur on the Ford Peninsula, BCDC will acknowledge these uses in the next update of the Seaport Plan and accommodate the City's goal of a corresponding reduction in the size of the area reserved for port priority use within the "Richmond ancillary port use zone." (Land Use Element, Santa Fe Channel Guideline 4)*
- *Designate for development a marina and commercial complex at the head of the Santa Fe Channel. (Land Use Element, Santa Fe Channel Guideline 5)*
  - *Establish commercial recreation uses at the tip of the Ford Peninsula. (Land Use Element, Santa Fe Channel Guideline 6)*
  - *Establish a park at the southwest corner of the Ford Peninsula. (Community Facilities Element, Santa Fe Channel Guideline 1) (See also Open Space and Conservation Element, Santa Fe Channel Guideline 2)*
  - *Require waterfront developments, as part of any project approval process, to provide the maximum feasible public access to the shoreline consistent with the project, with adequate links to inland areas. (Open Space and Conservation Element, Santa Fe Channel Guideline 3)*

North Shoreline:

- *Recognize the unique character of the North Richmond Shoreline Area and guide development of the area in a manner that improves its overall image, benefits community residents and allows for a reasonable level of development within a framework of conservation and public access to the Bay. (Land Use Element, North Shoreline Guideline 6)*
- *Encourage fuller utilization of the planning area for a range of land uses with emphasis given to employment-generating and recreational uses. (Land Use Element, North Shoreline Guideline 7) (See also Economic Development Element, North Shoreline Guideline 1)*
- *Encourage completion of infill development in the North Richmond area. (Land Use Element, North Shoreline Guideline 9)*
- *Encourage commercial nurseries to remain in the area. (Land Use Element, North Shoreline Guideline 10)*
- *Require projects involving auto dismantling activities to be enclosed and outside storage of vehicles to be prohibited. (Land Use Element, North Shoreline Guideline 11)*

- *Encourage industries which utilize the railroad tracks to locate in the North Richmond area, particularly between the Santa Fe and AT&SF railroad tracks. (Land Use Element, North Shoreline Guideline 12)*
- *Support recycling and composting activities, as an interim use, on the present landfill site after its current use for disposal of solid waste material is terminated; and, support the development of non-intensive recreation facilities and open space in the long term. (Community Facilities Element, North Shoreline Guideline 2)*

### ***Iron Triangle:***

The "Iron Triangle" planning area, bounded by the BART tracks, the railroad tracks and Ohio Avenue, overlaps the central Richmond portion of the Merged Project Area. The following associated General Plan land use "guidelines" currently apply to and will influence the physical characteristics and land use impacts of plan amendment-facilitated development in this planning area:

- *Revitalize and enhance the City Center and surrounding housing, community and commercial facilities as an integrated urban core. (Land Use Element, Iron Triangle Guideline 1)*
- *Create a vigorous and lively commercial core. (Land Use Element, Iron Triangle Guideline 2)*
- *Outside Redevelopment Area 10-A (which contains space for offices and business services, retail trade, and entertainment facilities) the use of the land is to be predominantly residential. (Land Use Element, Iron Triangle Guideline 5)*
- *Buffer residential uses from industrial neighbors by setbacks from homes (road rights of way and/or landscape corridors), architectural treatment of the building elevations facing the residences, walls/fencing and/or locating more benign uses (parking and/or office) along those frontages. (Land Use Element, Iron Triangle Guideline 6)*
- *Locate small neighborhood retail uses throughout the area for the convenience of the residents. Eliminate or rehab strips of run-down and vacant commercial structures which have outlived their usefulness. (Land Use Element, Iron Triangle Guideline 8)*
- *Eliminate vacant land and industrial uses unrelated to core activities which adversely affect the attractiveness of the area. (Land Use Element, Iron Triangle Guideline 9)*
- *Produce an orderly transition to higher density housing in appropriate locations through a combination of conservation, rehabilitation, new housing, and rebuilding. (Land Use Element, Iron Triangle Guideline 10)*
- *Revitalize and enhance the City Center and surrounding housing, community and commercial facilities as an integrated urban core. (Economic Development Element, Iron Triangle Guideline 1)*
- *Create a vigorous and lively commercial core. (Economic Development Element, Iron Triangle Guideline 2)*

- *Locate new office uses within the Redevelopment Area or near the BART station.* (Economic Development Element, Iron Triangle Guideline 6)
- *Locate small neighborhood shopping centers throughout the area for the convenience of the residents. Eliminate or rehab strips of run-down and vacant commercial structures which have outlived their usefulness.* (Economic Development Element, Iron Triangle Guideline 7)
- *Redevelop the commercial core as a compact unit with clearly defined boundaries, to help intensify activity and make a more attractive center of business functions.* (Economic Development Element, Iron Triangle Guideline 8)
- *Eliminate vacant land and industrial uses unrelated to core activities which adversely affect the attractiveness of the area.* (Economic Development Element, Iron Triangle Guideline 9)
- *Allow for residential, commercial and industrial development within the area bounded by Garrard Boulevard, 2nd Street and Macdonald Avenue with appropriate controls to minimize land use conflicts and to ensure that new development enhances the surrounding area.* (Economic Development Element, Iron Triangle Guideline 10)

**Pullman:**

The "Pullman" planning area, generally bounded by Ohio Avenue, the BART tracks, Cutting Boulevard, Wall Avenue, and I-580, also overlaps the central Richmond portion of the redevelopment project area. The following associated General Plan land use "guidelines" in particular would therefore apply to future redevelopment activities within this planning area:

- *Eliminate all non-residential uses which create a nuisance or do not serve the needs of the neighborhood.* (Land Use Element, Pullman Guideline 3)
- *Eliminate areas of stagnant vacant land by encouraging their development in a rational manner.* (Land Use Element, Pullman Guideline 4)
- *Suitably screen the BART and Santa Fe right-of-way so as to eliminate any nuisances that might occur.* (Land Use Element, Pullman Guideline 6)
- *Establish a policy of eliminating non-conforming uses where they occur, particularly in the general area of Ohio between So. 22nd and 31st Street.* (Land Use Element, Pullman Guideline 7)
- *Investigate ways and means of physically improving those areas immediately adjacent to the Redevelopment Area along Wall Street.* (Land Use Element, Pullman Guideline 8)

**Cortez/Stege/Coronado (North):**

The "Cortez/Stege/Coronado (North)" planning area, which is generally bounded by Ohio Avenue, the BART tracks, Cutting Boulevard, and 1st Street, overlaps the central Richmond portion of the Merged Project Area. The following General Plan land use "guideline" in particular would therefore apply to future redevelopment activities within the area:

- *Actively enforce, where appropriate, the industrial/office flex zoning standards in the area bounded on the north by Ohio Street, on the west by 1st Street, on the south by the Knox Freeway, and on the east by 2nd Street.* (Land Use Element, Cortez/Stege/Coronado (North) Guideline 2)

#### ***Cortez/Stege/Coronado (South):***

The "Cortez/Stege/Coronado (South)" planning area, which is generally bounded by Cutting Boulevard, Carlson Boulevard, I-580, and the railroad tracks, also overlaps the central Richmond portion of the Merged Project Area. The following associated land use "guidelines," in particular, would therefore apply to future redevelopment activities within this planning area:

- *Support residential development within the Cortez/Stege/Coronado (south) area by retaining existing residential designations within the "interior" of the neighborhoods.* (Land Use Element, Cortez/Stege/Coronado (South) Guideline 1)
- *Require non-residential activities occurring adjacent to residentially designated land to be responsive to existing and potential residential development.* (Land Use Element, Cortez/Stege/Coronado (South) Guideline 2)

#### **4.2.2 Regional Land Use Plans**

(a) Association of Bay Area Governments (ABAG) Plans and Policies. The following ABAG regional planning programs warrant consideration in implementing the proposed redevelopment plan amendment:

*(1) Regional Land Use Policy Framework.* The primary regional land use policy document adopted by the Association of Bay Area Governments (ABAG) is entitled A Proposed Land Use Policy Framework for the San Francisco Bay Area, and was adopted by the ABAG Executive Board in July 1990. The document is described as a regional policy framework for future land use decisions in the Bay Area that respects the need for strong local control, but that also recognizes the importance of regional comprehensive planning for issues of regional significance. The document contains policies that (1) direct growth where regional infrastructure (e.g., freeways, transit, water, solid waste disposal, sewage treatment) is available and natural resources will not be overburdened; (2) encourage development that discourages long-distance commuting; (3) establish firm growth boundaries; and (4) encourage provision of housing at all levels.

The proposed redevelopment plan amendment would be consistent with and would advance these policies, in that it (1) could be served by existing regional infrastructure systems, with improvements as described in chapter 6 (Transportation and Circulation), chapter 7 (Infrastructure and Public Services), and chapter 12 (Drainage and Water Quality); (2) would facilitate local employment growth and improved housing opportunities that together would assist the City in maintaining a relative balance between local jobs and employed residents, thereby reducing the need for long-distance commuting, as described in chapter 5 (Population, Housing and Employment); and (3) would help to improve housing opportunities in Richmond, as described in chapter 5 (Population, Housing and Employment).

*(2) FOCUS Program.* In addition to ABAG's Land Use Policy Framework, the ABAG-led FOCUS program is a regional development and conservation strategy, in partnership with the

Metropolitan Transportation Commission (MTC) and with support from the Bay Area Air Quality Management District (BAAQMD) and the Bay Conservation and Development Commission (BCDC), that promotes a more compact land use pattern for the Bay Area. The FOCUS program unites the efforts of these four regional agencies into a single program. The FOCUS program seeks to link land use and transportation and to reduce greenhouse gas emissions by encouraging development of complete, livable communities in areas served by transit and promoting conservation of the region's most significant resource lands. Through the FOCUS program, regional agencies support local government commitment to these goals by working to direct existing and future incentives to Priority Development Areas (PDAs) and Priority Conservation Areas (PCAs).

The City of Richmond includes two "Planned PDA" designations--the Central Richmond/Transit Village PDA and the South Richmond PDA--which both overlap the Merged Project Area.

(3) *Regional Housing Needs Allocation.* As discussed in chapter 5 of this EIR, ABAG also administers the State-required Regional Housing Needs Allocation (RHNA) process in the San Francisco Bay Area. As shown in Table 5.2 in chapter 5, the current RHNA assignment, which applies to the period from 2007 to 2014, calls for the City to identify sites for development of a total of 2,826 housing units (391 units for very low-income households, 339 units for low-income households, 540 units for moderate-income households, and 1,556 units for above moderate-income households).

As discussed in chapter 5, proposed redevelopment plan amendment actions supporting affordable housing and housing improvement would help the City to meet the RHNA assignment. The redevelopment plan amendment would not result in any inconsistencies with the RHNA.

(4) *ABAG's San Francisco Bay Trail Plan.* The San Francisco Bay Trail (Bay Trail) is a designated 400-plus-mile shared-use path system proposed by the Association of Bay Area Governments (ABAG). The Bay Trail program is intended to eventually provide for continuous travel around the bay for walkers, bicyclists, and other outdoor enthusiasts. The Trails for Richmond Action Committee (TRAC) has reported that Richmond now includes approximately 26 miles of completed Bay Trail, more than any other city on the planned 500 mile network.<sup>1</sup> Existing local segments of the San Francisco Bay Trail include (1) segments connecting the Brickyard Cove, Marina Bay, and Point Isabel areas in the southern part of the project area and vicinity; (2) a segment extending along Richmond Parkway (Garrard Boulevard); (3) a segment located south of the West County Landfill outside the project area; and (4) segments extending along Atlas Road and around Point Pinole north of the project area. The following planned extensions of the Bay Trail are located within or near the Merged Project Area:<sup>2</sup>

- a "Richmond Greenway Trail" segment running east-west along Ohio Avenue through the central Richmond portion of the Merged Project Area, linking the Del Norte BART station in El Cerrito to the east with the San Pablo Peninsula to the west;

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<sup>1</sup><http://www.pointrichmond.com/baytrail/about.htm>, viewed May 6, 2009.

<sup>2</sup>Association of Bay Area Governments, "San Francisco Bay Trail" map, Carquinez Strait--Vallejo to Richmond section, [http://baytrail.abag.ca.gov/maps/Carquinez\\_Strait.pdf](http://baytrail.abag.ca.gov/maps/Carquinez_Strait.pdf), viewed March 31, 2009.

- east-west Bay Trail segments in the vicinity of Seacliff Drive in southern Richmond portion of the Merged Project Area, linking a planned north-south segment along Canal Boulevard to the existing Marina Bay segment of the trail;
- a Bay Trail segment along the city's west, San Pablo Peninsula shoreline from Point Richmond to the San Pablo Yacht Harbor, traversing the shoreline edges of the Terminal 4 and Point San Pablo Yacht Harbor portions of the Merged Project Area;
- extensions of the Bay Trail near the West County Landfill, located outside the Merged Project Area; and
- extensions of the Bay Trail north of Richmond Parkway in the vicinity of Goodrick Avenue, in the northern part of the Merged Project Area.

The project actions and project-related development would need to comply with requirements of the Association of Bay Area Governments (ABAG) regarding the implementation and protection of this Bay Trail system. In particular, future redevelopment-facilitated development would be encouraged to accommodate compatible implementation of the proposed trail extensions.

(b) BCDC's San Francisco Bay Plan. The San Francisco Bay Conservation and Development Commission (BCDC) has state-authorized "Bay jurisdiction" over San Francisco Bay and all territory located between the bay shoreline and a line 100 feet inland of and parallel with the shoreline. Within its area of jurisdiction, BCDC is authorized to control both (1) bay filling and dredging, and (2) bay-related shoreline development. BCDC is authorized to issue or deny permits for any development activity within its bay jurisdiction. Any project-facilitated work or project-related development within the 100-foot shoreline band may require a new, or renewal of an existing, BCDC permit.

BCDC permit eligibility and conditions of permit issuance are largely governed by the San Francisco Bay Plan, completed and adopted by BCDC in 1968 and amended regularly since then. The plan was most recently amended in January 2008. The Bay Plan contains findings and policies related to the appearance and design of shorelines, as well as procedures for BCDC control of filling, dredging, and shoreline development. The Bay Plan also identifies "Priority Use Areas," i.e., shoreline areas designated for uses that must be located on the waterfront, such as ports and waterfront parks.

In Richmond, the BCDC area of jurisdiction includes a 100-foot shoreline band along the proposed Terminal 4 and Point San Pablo Yacht Harbor subareas as well as other shoreline portions of the Merged Project Area. In addition, BCDC has designated Richmond's port as a "Port Priority Use Area" that is to be reserved for marine terminal and ancillary uses.<sup>1</sup> (See discussion of BCDC's San Francisco Bay Area Seaport Plan below.)

(c) BCDC's San Francisco Bay Area Seaport Plan. BCDC's 1996 San Francisco Bay Area Seaport Plan, prepared jointly with the Bay Area Metropolitan Transportation Commission

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<sup>1</sup>Letter from Linda Scourtis, Coastal Planner, Bay Conservation and Development Commission, to Jonelyn Whales, City of Richmond, re. "Notice of Preparation (NOP) for the Richmond Redevelopment Plan Amendments Draft Environmental Impact Report (EIR), BCDC Inquiry File: CC.RH.7213.3; SCH#: 200572117," December 11, 2008.

(MTC), as amended through January 2007, constitutes the maritime element of the MTC's Regional Transportation Plan and has been incorporated into BCDC's San Francisco Bay Plan as the basis for Bay Plan port policies. MTC uses the Seaport Plan to assist in making funding decisions and managing the metropolitan transportation system. BCDC uses the Seaport Plan to help guide its regulatory decisions on permit applications, consistency determinations, and related matters.

The Seaport Plan includes findings and policies for the Port of Richmond, which includes the portion of the Merged Project Area adjoining the Santa Fe Channel and Harbor Channel in southern Richmond. The Seaport Plan sets targets for port cargo capabilities for the year 2020 and establishes policies for the use of various terminals, including the ARCO Terminal, the Kinder-Morgan berth, and Terminals 5, 6, 7, and 12.<sup>1</sup>

(d) South Richmond Shoreline Special Area Plan. The 1977 South Richmond Shoreline Special Area Plan (SAP) was prepared as part of a cooperative effort between BCDC and the City. The Richmond City Council adopted the SAP as an amendment to the Richmond General Plan, and BCDC adopted the SAP as an amendment to the Bay Plan. The SAP applies to the Santa Fe Channel/Harbor Channel and Inner Harbor Basin portions of the Merged Project Area. The SAP contains policies for land use, public access, design, and circulation in these areas. For the Inner Harbor Basin subarea, the SAP calls for a large marina, a major park, and public access. For the Santa Fe Channel/Harbor Channel subarea, the SAP calls for retaining the port priority use area designation and encouraging public access where feasible.<sup>2</sup> Since the SAP's adoption in 1977, many of its provisions have been implemented.

## 4.3 IMPACTS AND MITIGATION MEASURES

### 4.3.1 Significance Criteria

Based on Appendix G of the CEQA Guidelines,<sup>3</sup> the proposed redevelopment plan amendment and associated growth would be considered to have a significant adverse land use impact if they would:

- (a) disrupt or divide the physical arrangement of the community;
- (b) be incompatible with existing land use in the vicinity;
- (c) conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the Richmond General Plan,

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<sup>1</sup>San Francisco Bay Conservation and Development Commission and Metropolitan Transportation Commission, San Francisco Bay Area Seaport Plan, April 18, 1996, as amended through January 2007, pages 31-33.

<sup>2</sup>South Richmond Shoreline Special Area Plan Citizens' Advisory Committee, South Richmond Shoreline Special Area Plan, adopted by the Richmond City Council on April 25, 1977 and adopted by the Bay Conservation and Development Commission on May 5, 1977, as amended through August 20, 1987, pages 4-5.

<sup>3</sup>CEQA Guidelines, Appendix G, Items IX(a) through IX(c).

Richmond Zoning Ordinance, BCDC regulations, etc.) adopted for the purpose of avoiding or mitigating an environmental effect; or

- (d) conflict with any applicable habitat conservation plan or natural community conservation plan.

#### **4.3.2 Land Use Goals and Actions Associated with Redevelopment Plan Amendment**

The proposed redevelopment plan amendment would allow continuation of the following redevelopment-related purposes and actions pertaining to land use:<sup>1</sup>

- facilitating the elimination of blighting influences and the correction of deficiencies, including, but not limited to, abnormally high building vacancies; abandoned, deteriorated and dilapidated buildings; underutilized land; depreciated property values; and deficient public improvements, facilities, and utilities;
- assisting with the removal of structurally substandard buildings to permit the return of land to economic use through new construction;
- facilitating rehabilitation of those structures that are culturally, historically, physically and aesthetically worthy of rehabilitation, with emphasis on owner participation;
- assisting with abatement of environmental deficiencies, including earthquake hazards, inadequate street and alley layout, incompatible land uses, lots of inadequate size, shape or accessibility, hazardous materials, and site contamination;
- facilitating the assembly and disposition of land to achieve more productive and more appropriate land uses;
- assisting with the implementation of applicable specific plans;
- enhancement of commercial, retail, industrial, and research and development (R&D) development opportunities and increase in employment and economic development opportunities by stimulating private investment; and
- assisting with the expansion and upgrade of housing opportunities in the community to alleviate blighting conditions and improve the housing stock.

#### **4.3.3 Impact Assessment Growth Assumptions**

(a) General Plan Basis. The 2009 Draft Amended and Restated Redevelopment Plan for the Richmond Merged Redevelopment Project Area states that it is intended that the land use policies set forth in the City of Richmond General Plan "as it now exists or may hereafter be amended, and any specific plan(s) applicable to all or portions of the Merged Project Area that may hereafter be in effect from time to time" shall be the land use policies governing the

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<sup>1</sup>Richmond Community Redevelopment Agency, Final Preliminary Report, Redevelopment Plan Amendment, 2009, pages III-3 through III-4.

redevelopment plan amendment.<sup>1</sup> The future growth assumptions developed for this EIR analysis as the basis for determining project-related environmental impacts and mitigation needs are based primarily on consideration of the land use allowances of the adopted City of Richmond General Plan.

For purposes of "worst case" environmental impact assessment, it is assumed in this EIR that the proposed redevelopment plan amendment will be highly successful in achieving its goal of alleviating identified land use and land use-related deficiencies. As a result, plan amendment implementation would reverse current land underutilization trends and stimulate accelerated future development in the Merged Project Area within the framework of the City of Richmond General Plan, including the adopted General Plan Land Use Map designations, land use policies, and area-specified guidelines listed in sections 4.2(b) and 4.2(c) above.

It is assumed throughout this EIR that the intensity of future redevelopment-facilitated development would be the highest allowed under the City's current General Plan land use designations, policies and guidelines for the various areas. This conservative ("worst case") buildout assumption is evaluated throughout this EIR to ensure that the analysis of cumulative effects, such as traffic and air quality impacts, covers all of the potential impacts that could occur with implementation of the proposed plan amendment. It is likely that the actual intensity of redevelopment plan amendment-facilitated development that would occur would vary within, and be less than, the maximum ranges permitted by the General Plan.

(b) Impact Timing. In some portions of the Merged Project Area, existing time limits for undertaking redevelopment activities extend out to 2035 and existing time limits for receiving tax increment extend out to 2050. It is assumed in this EIR, again for purposes of "worst case" impact assessment, that the major portion of the redevelopment activities proposed in the redevelopment plan amendment and associated plan amendment-facilitated urban growth would be successfully implemented over the next approximately 20 years, or by 2030.

#### **4.3.4 Impacts and Mitigation Measures**

**Areawide Land Use Impacts.** As explained above, new or accelerated development encouraged or facilitated by the amended redevelopment plan would be controlled by existing and future General Plan Land Use Map designation described in section 4.2.1(a) and the land use policies and area-specific land use guidelines listed in sections 4.2.1(b) and 4.2.1(c), respectively, above. As a result, redevelopment-facilitated future development within the Merged Project Area would occur primarily as infill, with no significant change in established community-wide or central area land use patterns. (The potential for individual land use compatibility impacts due to this anticipated overall land use intensification are addressed herein under *Impact 4-1*, which follows.) Encouragement of such infill development and rehabilitation activity would be expected to generally foster land use consolidation and nuisance reduction, which would be positive land use effects. This project-encouraged infill development would also further the land use improvement and overall revitalization and economic development goals of the City of Richmond General Plan.

If successful, the amended redevelopment effort would facilitate an increased rate of development and redevelopment of existing undeveloped and under-developed residential,

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<sup>1</sup>Richmond Community Redevelopment Agency, Draft Amended and Restated Redevelopment Plan, 2009, pages 6 and 11.

commercial, and industrial lands in the Merged Project Area. Increased commercial development would also be expected in the form of rehabilitation and conversion of existing structures, in addition to new construction.

By law, adopted City of Richmond General Plan Land Use Map designations, land use policies and special area land use guidelines listed in sections 4.2.1(a), (b) and (c) above would continue to govern implementation of the redevelopment actions authorized by the plan amendment, including all redevelopment-facilitated future development in the Merged Project Area. The proposed plan amendment would not influence the ultimate amount, distribution, or form of development permitted in the Merged Project Area. No General Plan or zoning change is proposed. The proposed redevelopment plan amendment does not include any changes to adopted City building intensity or population density standards or to the pattern or distribution of land use designations established by the City's General Plan and zoning. Required future project-related development compliance with the General Plan Land Use Map designations, effective implementation of the mitigating land use policies and special area land use guidelines listed in sections 4.2.1(b) and 4.2.1(c) above to the satisfaction of the City's Planning Department staff, Design Review Board, and Planning Commission, would mitigate the potential areawide land use impacts of the proposed redevelopment plan amendment by ensuring that project-related development will not: (a) disrupt or divide the physical arrangements of the community [significance criterion (a) from section 4.3.1, Significance Criteria, above]; be incompatible with existing land use in the vicinity [significance criterion [b]]; conflict with an applicable City land use plan, policy or regulation adopted for the purpose of mitigating land use impacts [criterion (c)]; or conflict with any applicable habitat conservation plan or natural community conservation plan [criterion (d)] and thereby reduce project-related areawide adverse land use impacts to insignificance.

**Mitigation for Areawide Land Use Impacts.** No significant adverse areawide land use impact has been identified; no mitigation is required.

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**Residential and Commercial Rehabilitation Impacts.** Future continued and additional redevelopment actions anticipated with the proposed redevelopment plan amendment include removal of structurally substandard buildings and rehabilitation of worthy structures. These rehabilitation programs, in combination with other anticipated project blight elimination actions described in section 3.4 herein (elimination of environmental deficiencies, stimulation of private investment, etc.) would be expected to provide a viable incentive to individual property owners to independently improve and renovate their existing properties, thereby improving the quality of land use in the various Constituent Project Areas and, in turn, stimulating further private investment. These rehabilitation-related land use impacts would be beneficial.

**Mitigation for Residential and Commercial Rehabilitation Impacts.** No significant adverse environmental impact has been identified; no mitigation is required.

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**Beneficial Land Use Compatibility Benefits.** As a result of project-authorized programs to remove structurally substandard buildings, project authorized rehabilitation assistance for worthy buildings, project-financed infrastructure improvements, and other redevelopment activities to eliminate blight, the number of nuisance-prone land uses in the Merged Project Area would be expected to decrease as rehabilitation or replacement with more compatible industrial, commercial, and residential development occurs. The proposed redevelopment plan

amendment would also facilitate ongoing activities that would reduce land use incompatibilities; see section 4.3.2, Land Use Goals and Actions Associated with Redevelopment Plan Amendment, earlier in this chapter. These effects would represent a beneficial land use compatibility impact of the project.

**Mitigation.** No significant adverse impact has been identified; no mitigation is required.

**Impact 4-1: Adverse Land Use Compatibility Impacts.** In addition to the kinds of beneficial land use compatibility effects cited above, some project-facilitated land use changes within the Merged Project Area could result in adverse land use impacts. Given the proximity of some existing and planned differing land uses in subareas of the Merged Project Area, project-assisted intensification could introduce significant new land use conflicts between specific industrial or commercial developments next to or near residential, park or open space uses (e.g., public safety, security, traffic, visual, light, noise, parking, odor and other conflicts). Such project-induced effects would represent **potentially significant adverse land use compatibility impacts** (see criteria (a) through (c) under section 4.3.1, "Significance Criteria," above).

Some portions of the Merged Project Area have mixed and potentially incompatible existing land uses and land use designations. The proximity of these differing land uses does not necessarily mean that they are incompatible. As listed in section 4.2.1(b) herein, the City's existing General Plan includes policies intended to limit potential incompatibilities, such as requirements regarding buffering of industrial uses from adjacent uses, locational compatibility between industrial operations and other activities, conversion of long-term vacant commercial and light industrial space into live/work space, land assembly to permit increased design flexibility, encouraging "complementary uses" is regional shopping/office centers, revitalization of existing commercial activity areas, use of established standards to limit industrial activities that may endanger human health and cause damage to the environment, and avoidance of new land uses that place residential dwellings with heavy industrial and maritime uses. In addition, the City's existing building setbacks, lot coverage, landscaping, fencing, parking standards, building height and mass, and limits and special controls on activities allowed (such as standards of operation in heavy commercial and industrial districts).

Nevertheless, project-facilitated industrial, commercial, or higher density residential development next to or near existing residential, park, or open space uses could result in significant land use compatibility impacts associated with such factors as public safety, security, visual compatibility, view protection, light and glare, noise, and odor. Specific potential future project-related land use incompatibilities within the Merged Project Area include:

- possible project-facilitated light industrial development adjacent to existing residential uses in the central Richmond area;
- possible project-facilitated high- or medium-density residential development near existing industrial uses in the central Richmond area; and/or

- possible project-facilitated port/marine terminal and/or industrial uses next to or near recreational shoreline lands, the Bay Trail, and preservation/resource (hillside protection) areas in the Terminal 4 and Point San Pablo Yacht Harbor area, as well as in southern and northwestern Richmond.

**Mitigation 4-1:** During City Planning Department staff, Design Review Board and Planning Commission review, and prior to approval of, individual projects within the Merged Project Area, the City shall emphasize the need to avoid significant new land use conflicts between non-residential and residential development, between sensitive new commercial uses and existing nuisance-prone commercial and industrial uses, and between new uses and valued shoreline and hillside resource areas. During these review procedures and the formulation of conditions of approval, the City shall require assurances of (1) adequate land use separation, scale transition, and noise buffering; (2) creative siting of buildings to avoid conflicts; (3) adequate protections against light, glare, and shadow impacts; (4) adequate noise and odor control; (5) adequate offstreet parking provisions; and (6) other common measures warranted to avoid such land use conflicts. Implementation of these measures to the satisfaction of Planning Department staff, the Design Review Board and the Planning Commission, and consistent with the applicable Richmond General Plan policies and special area design guidelines listed in sections 4.2.1(b) and 4.2.1(c) herein, would reduce potential land use compatibility impacts to a ***less-than-significant level***.

**Growth-Inducing Impacts.** Growth inducement associated with increased economic activity and investment is an inherent impact (i.e., a goal) of the proposed redevelopment plan amendment. The primary growth-inducing impacts of the project would be confined within the boundaries of the Merged Project Area. To a lesser degree, secondary growth-inducing impacts (the "multiplier" effect) could also be expected in adjacent areas outside the Merged Project Area boundary. Project-facilitated infrastructure improvements, and some of the development projects that would be facilitated within the Merged Project Area, might also induce additional pressure to intensify use of surrounding underused lands. This primary and secondary growth inducement would be required to occur in a manner consistent with the City of Richmond General Plan Land Use Map, policies, and special area guidelines listed in sections 4.2.1(a), (b) and (c) above.

Such secondary growth-inducing land use impacts of the project would occur in the form of future individual development proposals and associated applications. Each such future project, discretionary development action would require applicant submittal and City review of associated individual development applications, and under CEQA, would routinely involve project-specific environmental impact documentation and public review to ensure that associated significant adverse land use impacts are adequately addressed. These requirements and procedures would be expected to reduce such secondary growth-inducement impacts of the project to ***less-than-significant*** levels, unless specific statements of overriding consideration were adopted.

**Mitigation.** No significant adverse growth-inducing impact has been identified; no mitigation is required.

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**Cumulative Land Use Impacts.** In addition to the land use intensification that would be anticipated in the Merged Project Area through the year 2030, other development unrelated to the proposed redevelopment plan amendment would also continue to occur elsewhere in the City and surrounding subregion. These anticipated cumulative development increments would be required by law to be consistent with adopted general plans for these areas, and thus would not be expected to result in an overall cumulative adverse land use impact. They would, however, contribute to other types of adverse cumulative, community-wide and region-wide environmental impacts, such as impacts on transportation and air quality conditions.

These cumulative effects are addressed in corresponding chapters of this EIR including chapter 6 (cumulative transportation and circulation impacts), chapter 7 (cumulative infrastructure and public services impacts), chapter 13 (cumulative noise impacts), chapter 14 (cumulative air quality impacts), and chapter 16 (cumulative climate change impacts). These cumulative land use changes and associated environmental impacts are largely promulgated by existing General Plan policies and have been considered in the preparation and adoption of the General Plan and the City-certified 1993 General Plan Update EIR. The potential project contribution to these cumulative impacts would be limited in extent by the policies of the existing General Plan and therefore would be considered ***less than significant***.

**Mitigation.** No significant cumulative land use impact has been identified; no mitigation is required.



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## 5. POPULATION, HOUSING, AND EMPLOYMENT

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This chapter addresses anticipated impacts of the proposed redevelopment plan amendment on population, housing, and employment characteristics in the merged project area and in greater Richmond.

### 5.1 SETTING

The population, housing, and employment growth estimates described in this section are based on the most recent (2009) long-term employment, household, and population forecasts made for Richmond by the Bay Area's designated regional land use planning agency, the Association of Bay Area Governments (ABAG). Every two years, ABAG issues long-term growth forecasts for each of its member cities and counties. The ABAG forecasts are designed to be realistic assessments of growth based on emerging market and demographic trends and land available for development, as determined by local land use policy.<sup>1</sup>

#### 5.1.1 Population

Table 5.1 shows existing and projected population within the City sphere of influence, based on demographic data developed by ABAG.<sup>2</sup> As shown, Richmond's year 2010 population of 123,000 (105,000 in the city limits, 18,000 additional outside the city limits but within the sphere of influence) is projected to grow to 153,700 (132,000 in the city limits, 21,100 additional outside the city limits but within the sphere of influence) by 2030, a 25.0-percent increase over the 20-year period.

#### 5.1.2 Housing

Table 5.1 and the following discussion describe ABAG estimates of existing and projected household totals for Richmond. The terms "households" and "dwelling units," as defined by ABAG, are similar but not equivalent; a household is defined as an occupied dwelling unit.

In 2010, a total of approximately 43,450 households are projected for the Richmond sphere of influence. By 2030, ABAG projects that the Richmond sphere of influence will have 55,030 households, representing a 26.7-percent increase between 2010 and 2030.

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<sup>1</sup>ABAG, Projections and Priorities 2009. ABAG uses local General Plan land use policy information to determine and distribute employment, population, and household growth in various subregional study areas.

<sup>2</sup>ABAG's Projections and Priorities 2009 document has compiled data for city-centered areas or "subregional areas" in the various counties. The subregional areas generally correspond to the Local Agency Formation Commission (LAFCo) designated spheres of influence for each community.

Table 5.1

**PROJECTED RICHMOND POPULATION, HOUSING AND JOB GROWTH, 2005-2030**

	<u>2005</u>	<u>2010</u>	<u>2030</u>	<u>Change 2005-2030</u>	<u>Percent Change 2005-2030</u>
Richmond Sphere of Influence					
Total population	120,000	123,000	153,700	+30,700	+24.96
Total households	42,000	43,450	55,030	+11,580	+26.65
Persons per household	2.82	2.79	2.76	-.03	-1.08
Total jobs	44,330	44,070	62,670	+18,600	+42.21
Total employed residents	49,550	51,370	82,560	+31,190	+60.72
Ratio (jobs/household)	1.06	1.01	1.14	+0.13	+12.87
Ratio (jobs/employed resident)	0.90	0.85	0.76	-0.09	--

SOURCE: ABAG, Projections and Priorities 2009, August 2009 ("subregional study area" projections); Wagstaff and Associates, 2009 (jobs/household and jobs/employed resident ratios).

**5.1.3 Employment**

As indicated in Table 5.1, the projected total number of jobs in Richmond in 2010 is approximately 44,070 and is projected to increase to 62,670 by 2030, a 42.2-percent increase.

**5.1.4 Jobs/Housing Balance**

Regional planning goals have increasingly emphasized the need to improve the balance between housing and jobs in subregions as a means of reducing intraregional commuting and associated traffic congestion and air quality impacts. The term "jobs/housing balance" is commonly used to describe the relationship between the number of local jobs available and the number of local employed residents. While the "jobs/housing balance" is the term most often used, the "jobs/employed resident balance" is the more precise measure of the local relationship of housing to jobs, since housing units (or households), on average, contain more than one employed resident. To the degree that a balance is achieved between local jobs and housing, there are greater opportunities for local residents to work close to where they live and for local employees to live close to work.<sup>1</sup> Where a city's local jobs/employed resident ratio is substantially higher than the regional ratio, a higher tendency toward in-commuting is indicated; where the local ratio is substantially lower than the regional ratio, a higher tendency toward out-commuting is indicated.

<sup>1</sup>It is important to note, however, that a simple numerical balance in the jobs/housing ratio does not necessarily indicate that local residents and workers have adequate opportunity to live and work in their community. Other factors, such as the match between local resident employee skills and the skills required for local jobs, and the match between local job compensation levels and local housing prices, also influence a community's actual jobs/housing relationship.

As indicated in the Table 5.1, Richmond was estimated to have slightly fewer jobs than local employed residents in 2010, translating to a jobs/employed resident ratio of 0.85. The ratio is expected to decrease during the 20-year period until 2030, with a projected 2030 jobs/employed resident ratio of 0.76. The jobs/employed resident ratio for Contra Costa County as a whole is expected to remain roughly unchanged over this period; the ratio was 0.77 in 2010, and is projected to remain at 0.77 in 2030. For the nine-county Bay Region, the jobs/employed resident ratio is projected to be 1.02 in 2010 and 1.04 by 2030. The figures indicate that Richmond has more employed residents than jobs, with less balance than Contra Costa County as a whole.

## 5.2 PERTINENT PLANS AND POLICIES

### 5.2.1 City of Richmond General Plan

The adopted 1994 *Land Use Element* and *Economic Development Element* and the November 2005 *Housing Element* contain goals, policies, and other provisions formulated to achieve various socio-economic objectives with respect to the range of available housing types, special housing needs, neighborhood quality and character, and housing rehabilitation, as well as policies formulated to avoid undesirable adverse physical (environmental) housing and employment conditions. The following listing of pertinent policies and area-specific guidelines from these three General Plan elements has been limited to those adopted for the purpose of avoiding or mitigating a physical environmental effect<sup>1</sup> (e.g., to avoid adverse land use conditions or incompatibilities, reduce vehicular traffic, etc.).

It is not expected that the goals and policies listed below will change substantially with the anticipated update of the General Plan now underway.

#### ***Land Use Element Policies:***

##### Form and Appearance

- *Urge inclusion of a broad variety of dwelling types within all new and existing residential communities. (Policy LU-C.2)*

##### Residential Areas

- *Encourage the infill of housing on parcels within the multi-family residential neighborhoods at a density appropriate to an urban area and which can be efficiently served by public transit, utilities, and services. (Policy LU-K.1)*

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<sup>1</sup>The CEQA Guidelines explain that an economic or social change alone is not considered a significant environmental effect, but an economic or social change or effect that can be related to a significant physical--i.e., "environmental"--change may be considered (CEQA Guidelines sections 15064(f) and 15382). In this light, the policies listed in section 5.2 are limited to those that appear to have been adopted for the purposes of avoiding or mitigating an adverse environmental effect--e.g., policies advocating housing as infill as a means of reducing vehicular traffic.

***Area-Specific Guidelines:***

In addition, the *Land Use Element* and *Economic Development Element* contain the following area-specific guidelines:

*Iron Triangle:*

- *Revitalize and enhance the City Center and surrounding housing, community and commercial facilities as an integrated urban core.* (Economic Development Element, Iron Triangle Area Guideline 1)

*North Shoreline:*

- *Encourage fuller utilization of the planning area for a range of land uses with emphasis given to employment-generating and recreational uses.* (Economic Development Element, North Shoreline Area Guideline 1)

***Housing Element Policies:***

The City's *Housing Element* has identified four target subareas of Richmond in which to focus its housing improvement activities. These four target subareas--Central Richmond, Southside, North Richmond, and Hilltop--are described in the *Housing Element* as having high minority concentrations, above average levels of poverty and unemployment, older housing that is often in disrepair, and general blighting conditions. All four target subareas include portions of or overlap the merged project area. The *Housing Element* also includes the following goals and policies pertinent to consideration of the physical environmental effects of the proposed redevelopment plan amendment:

*Improve and Preserve Neighborhoods:*

- *Conserve and maintain the existing housing stock to the maximum extent feasible.* (Housing Element Goal E)
- *Preserve and upgrade residential neighborhoods so that they are attractive, save, retain their distinct identifies, and promote a sense of community.* (Housing Element Goal F)
- *Promote housing development and public improvements to take advantage of adjoining transportation, community facilities, open space, commercial services, and amenities (i.e., smart growth).* (Housing Element Goal G)

*Enhance the Quality and Supply of Affordable Housing:*

- *Promote affordable infill housing development wherever compatible with existing neighborhoods.* (Housing Element Policy 1)
- *Promote development of affordable housing on surplus, underused or vacant public lands where appropriate and where compatible with existing uses.* (Housing Element Policy 4)
- *Assist non-profit developers of affordable housing to obtain infill sites at reduced cost.* (Housing Element Policy 5)

### **5.2.2 Regional Housing Needs Allocation**

The State of California requires every city to accommodate its fair share of regional growth through a process called the Regional Housing Needs Allocation (RHNA). The Association of Bay Area Governments (ABAG) administers the RHNA process in the San Francisco Bay Area. ABAG allocates housing needs to each of the nine counties and 100+ cities in the region, identifying the number of units that must be accommodated in each of four income categories. Although cities and counties are not actually required to build the allocated number of units, they must show that their communities contain the capacity to build these units, i.e., that land is zoned to accommodate the new units.

Table 5.2 shows the current RHNA assignment for the City for the period from 2007 to 2014. As the table shows, the RHNA assignment calls for the city to provide for development of a total of 2,826 housing units during the 2007-2014 period, consisting of 391 units for very low-income households, 339 units for low-income households, 540 units for moderate-income households, and 1,556 units for above moderate-income households.

## **5.3 IMPACTS AND MITIGATION MEASURES**

### **5.3.1 Significance Criteria**

Based on Appendix G of the CEQA Guidelines,<sup>1</sup> the proposed redevelopment plan amendment would be considered in this EIR to have a significant adverse impact on population and housing conditions if it would:

- (a) induce substantial population growth either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure); or
- (b) displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere.

### **5.3.2 Impacts and Mitigation Measures**

**Population and Housing Growth Impacts.** The proposed redevelopment plan amendment would be expected to increase the pace of economic revitalization, residential and commercial structure rehabilitation, private investment, employment opportunity growth, and housing supply expansion in the Merged Project Area. Correspondingly, the pace of population and housing growth in the Merged Project Area would increase; however, the project-related population and housing growth increments would not be expected to exceed adopted Richmond General Plan allowances or associated ABAG population and housing projections, and therefore would not represent significant project impacts under CEQA (see section 5.3.1, Significance Criteria, above). However, as described in chapters 6 through 16 of this EIR, these project-related household and population increases would contribute to associated ***potentially significant project and cumulative physical (environmental) impacts***, including significant land use, transportation, aesthetic, noise, air quality, drainage, water quality, cultural and historic

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<sup>1</sup>CEQA Guidelines, Appendix G, Items XII(a) through XII(c).

Table 5.2  
REGIONAL HOUSING NEEDS ALLOCATION FOR RICHMOND, 2007-2014

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<u>Income Category</u> <sup>1</sup>	<u>Number of Housing Units</u>
Very Low Income	391
Low Income	339
Moderate Income	540
Above Moderate Income	1,556
<b>Total:</b>	<b>2,826</b>

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SOURCE: Association of Bay Area Governments (ABAG), San Francisco Bay Area Housing Needs Plan, 2007-2014 (viewed at <http://www.abag.ca.gov/planning/pdfs/SFHousingNeedsPlan.pdf>), June 2008, pages 33 and 44.

NOTES:

<sup>1</sup> Income categories are defined as follows:

Very low income = up to 50 percent of regional median income

Low income = between 50 and 80 percent of regional median income

Moderate income = between 80 and 120 percent of regional median income

Above moderate income = above 120 percent of regional median income

resources, hazardous materials exposure risk, and climate change impacts. These related impacts and associated mitigation measures are described in detail in chapters 4 and 6 through 16 of this EIR.

**Mitigation:** No significant adverse direct population or housing growth impact has been identified; no mitigation is required.

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**Permanent Employment Impacts.** The project would encourage the development of additional employment opportunities in the project area. For purposes of "worst case" environmental impact assessment, this EIR assumes that the project would be highly successful in stimulating local employment growth. This increase in local jobs would constitute a significant beneficial economic impact, and is a project goal (see further discussion in chapter 3, Project Description, of this EIR). The project-related employment growth increment would not exceed adopted Richmond General Plan allowances or associated ABAG employment projections. However, the project-related increase in the rate of employment growth could result in significant secondary adverse impacts on land use, traffic, noise, air quality, and other environmental conditions, as discussed in corresponding chapters of this EIR.

**Mitigation.** No significant additional adverse environmental impact has been identified; no mitigation is required.

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**Temporary Employment Impacts.** Additional construction jobs also be created by redevelopment plan amendment-facilitated economic, real estate and infrastructure development over the project's implementation period. The actual number of temporary jobs created by the project activities between 2005 and 2030 would depend on the construction dollars spent; a total cannot be accurately quantified at this time. Nevertheless, these project-generated employment opportunities would represent a significant, beneficial economic impact of the project. However, these construction jobs could also result in significant, temporary adverse physical (environmental) impacts related to noise, air quality, hazards and hazardous materials, and climate change, which are discussed in corresponding, subsequent chapters of this EIR.

**Mitigation.** No significant additional adverse environmental impact has been identified; no mitigation is required.

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**Jobs/Housing Balance Impacts.** The projected households and job increases in the Merged Project Area between 2005 and 2030 under the "with project" scenario would contribute to the relatively balanced jobs/household ratio in Richmond, i.e., a **beneficial environmental impact**.

**Mitigation.** No significant environmental impact has been identified; no mitigation is necessary.

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**Affordable Housing and General Housing Improvement Impacts.** A primary goal and California Community Redevelopment Law requirement of redevelopment plans and plan amendments is to allocate a specified portion of associated tax increment funding to affordable housing and general housing improvement. Community Redevelopment Law also requires that (a) 15 percent of new and substantially rehabilitated housing developed by private developers and public entities other than the Redevelopment Agency in project areas be affordable to very low-, low-, and moderate-income households (with 40 percent of the 15 percent being affordable to very low-income households); and (b) 30 percent of housing developed by the Agency be affordable to very low-, low-, and moderate-income households (with half of the 30 percent being affordable to very low-income households and the other half being affordable to low- or moderate-income households). The proposed redevelopment plan amendment does not include any specific housing development projects, but rather includes a list of activities to facilitate production and rehabilitation of the community's affordable housing stock, as well as to fund seismic upgrades and other building and site improvements (see chapter 3, Project Description, of this EIR). These actions would be consistent with and implement General Plan goals and policies for affordable housing development (Housing Element Policies 1, 4, and 5) and maintenance and improvement of the existing housing stock (Housing Element Goals E and F). The actions would also assist the City in meeting the Regional Housing Needs Allocation (RHNA) assigned to the City by ABAG for the period from 2007 to 2014. The proposed plan amendment actions supporting affordable housing and housing improvement would therefore represent beneficial housing impacts.

The Redevelopment Agency may spend a portion of its affordable housing tax increment funds made possible by adoption of the plan amendment to facilitate the development and rehabilitation of affordable housing outside the Merged Project Area. Such expenditures would not increase the total number of dwelling units that may be built outside the Merged Project Area under the General Plan, but instead would assure that a higher percentage of such units would be available at affordable cost to low- and moderate-income households. This EIR

assumes that, by itself, the project-related change in income characteristics of the households residing in units built outside the Merged Project Area would not have a discernable, physical, environmental impact that requires further CEQA analysis.

**Mitigation.** No significant environmental impact has been identified; no mitigation is necessary.

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**Cumulative Population and Housing Impacts.** In addition to the housing unit, population, and job growth anticipated in the Merged Project Area through the year 2030, other development unrelated to the plan amendment would continue to occur elsewhere in the city and surrounding subregion. This anticipated development would be required to be consistent with adopted general plan policies for these areas. Thus, cumulative development and associated environmental impacts--including effects of housing unit, population, and job growth and the potential for displacement of housing units and residents--have been considered in the preparation and adoption of the Richmond General Plan and City-certified General Plan EIR, as well as in similar documents prepared for and adopted in other jurisdictions. The proposed plan amendment, combined with anticipated development elsewhere in the city and subregion, would not result in any significant adverse cumulative impacts on population, housing, or employment; i.e., would not result in cumulative growth increments substantially exceeding current ABAG projections for these areas (see section 5.3.1, Significance Criteria, above). As described in chapters 6 through 16 of this EIR, however, cumulative household, population, and job increases would contribute to other types of ***potentially significant cumulative physical (environmental) impacts***, including, for example, transportation and air quality impacts. These related cumulative impacts and associated mitigation measures are described in detail in chapters 6 through 16 of this EIR.

**Mitigation:** No significant cumulative population or housing growth impact has been identified; no mitigation is required.

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## 6. TRANSPORTATION AND CIRCULATION

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This EIR chapter describes existing and projected transportation conditions in the Merged Project Area vicinity, analyzes potential impacts of the proposed project on these conditions, and recommends mitigation measures for identified significant impacts.

This EIR chapter is tiered upon the City's 1994 City of Richmond General Plan and Zoning Ordinance Updates EIR (State Clearinghouse #92033006), 2005 Proposed Richmond Redevelopment Plan Amendment Program EIR (State Clearinghouse #2004082095), and 2008 Proposed Enterprise Zone Re-Designation Program EIR (State Clearinghouse #2006092012), as described in section 1.2 (Environmental Documentation Approach), and in accordance with section 15152 of the State CEQA Guidelines. As appropriate, this Draft EIR chapter summarizes transportation setting and impact information contained in these previous EIRs, updates that information as necessary to reflect current conditions and information not known at the time the previous EIRs were adopted, and evaluates whether additional mitigation measures, beyond those proposed in the three previous EIRs, would be required to reduce the environmental impacts of the redevelopment plan amendment program to less-than-significant levels, or to maintain impact levels assessed in the three cited previous EIRs for buildout under the General Plan.

The information in this chapter includes the existing and projected 2030 level of service analysis results for 43 "study intersections" in the city developed by the 2008 Enterprise Zone Re-Designation Program EIR transportation consultant, Dowling Associates Incorporated, based on existing forecasted 2030 traffic information from the 2008 Contra Costa Transportation Authority (CCTA) West County Travel Demand Model.

### 6.1 SETTING

The existing transportation system serving the Merged Project Area and the City consists of a network of regional roadways (freeways and a parkway), local roadways, transit services, and pedestrian and bicycle facilities. This existing network is described below. Existing roadway traffic volumes and intersection operations are also described.

#### 6.1.1 Existing Roadway Network

(a) Regional Access. Interstate 580 (I-580) provides regional access for the southern portions of Richmond and, via the Richmond-San Rafael Bridge, serves as the only direct vehicular link between Contra Costa and Marin counties. Interstate 80 (I-80) links Richmond to Oakland, other East Bay communities, and San Francisco to the southwest, and to Vallejo and Sacramento to the north. The Bay Area Rapid Transit (BART) system, AC Transit, Golden Gate Transit, WestCAT, and City-operated paratransit connect Richmond to San Francisco and to other East Bay cities. Amtrak provides intrastate passenger rail service from its central Richmond station to Sacramento and San Jose, and through the Central Valley to Bakersfield. The existing regional freight rail network links Richmond to Martinez and Oakland, and provides

local access lines to the city's industries and port facilities. The Baldwin and Southampton shipping channels provide direct shipping routes from Richmond through the Golden Gate.

*Interstate I-80* extends through the eastern portion of the city with local interchanges at Carlson Boulevard, Potrero Avenue, Cutting Boulevard, San Pablo Avenue, San Pablo Dam Road, El Portal Drive, Hilltop Drive, and Richmond Parkway. During the AM and PM peak periods in the peak direction, I-80 experiences congestion throughout the corridor from the Bay Bridge to the Carquinez/Al Zampa Bridge.

*Interstate I-580* extends through the southern portion of the city, with local interchanges at Central Avenue, Bayview Avenue, Regatta Boulevard, Marina Bay Parkway/23rd Street, Harbour Way, Canal/Garrard Boulevard, Richmond Parkway/Castro Street, and Western Drive. Currently, the Richmond-San Rafael Bridge is undergoing a seismic retrofit and is subject to vehicle stoppages and delays. Historically, congestion has occurred at the westbound approach to the bridge toll plaza during the AM and PM peak hours.

*Richmond Parkway* serves the western portion of the city. The parkway provides an interregional connection between I-80 north of the Hilltop Mall and the Richmond-San Rafael Bridge. It is a four-lane divided highway with future capacity at selected locations for six lanes.

(b) Local Access. The Richmond General Plan *Circulation Element* classifies local roadways serving the community into two categories--*major thoroughfares* and *secondary thoroughfares*. Designated *major thoroughfares* that provide access to the Merged Project Area include:

- Carlson Boulevard,
- 23rd Street,
- San Pablo Avenue,
- Cutting Boulevard,
- Harbour Way,
- Marina Bay Parkway (Ohio Avenue to Barrett Avenue),
- Pennsylvania Avenue-13th Street-Rumrill Boulevard,
- Barrett Avenue,
- Macdonald Avenue,
- Hilltop Drive,
- Robert H. Miller Drive, and
- Garrard Boulevard.

Designated *secondary thoroughfares* that provide access to the Merged Project Area include:

- Harbour Way South,
- Marina Bay Parkway,
- Marina Way,
- Parr Boulevard,
- 7th Street,
- Canal Boulevard, and
- Western Drive.

(c) Routes of Regional Significance. For the purposes of Contra Costa County Measure C and the Contra Costa County Congestion Management Program (CMP), the CCTA (which is the Congestion Management Agency for Contra Costa County) has divided the roadway system serving the Richmond vicinity into *Routes of Regional Significance* and *Basic Routes*. In the

Merged Project Area vicinity, the following roadways are designated by the CCTA as *Routes of Regional Significance*:

- San Pablo Avenue,
- Carlson Boulevard,
- Cutting Boulevard from 23rd Street to San Pablo Avenue,
- 23rd Street,
- Castro Street,
- Richmond Parkway, and
- Garrard Boulevard-Pennsylvania Avenue-13th Street.

The CCTA-formulated CMP designates a subset of the *Routes of Regional Significance*--a "CMP network"--for ongoing monitoring and establishes level-of-service standards for these routes. In Richmond, the CCTA-designated CMP network includes I-80, I-580, San Pablo Avenue, and Cutting Boulevard.

CCTA-designated *Basic Routes* include all other streets and highway routes within a jurisdiction.

(d) Identified Local Roadway Network Issues. As indicated in section 6.1.6 (Existing Levels of Service) of this chapter, local intersections serving the Merged Project Area are generally operating at acceptable "levels of service"; however, the city experiences a high rate of city-wide pedestrian-car accidents.

There are numerous at-grade railroad crossings of major access routes serving portions of the city, including portions of the Merged Project Area, where associated railroad movement activity can and does intermittently block direct vehicular access and delays emergency response times for periods in excess of 15 minutes. The Richmond Fire Department has nevertheless recently concluded that at least 85 percent of the time, response times in these areas affected by at-grade railroad crossing blockages would still be within the General Plan performance standard of six minutes (General Plan Policy GM-B.1, and associated performance standard for Fire).<sup>1</sup>

### **6.1.2 Transit Service**

AC Transit, Golden Gate Transit, WestCAT, Bay Area Rapid Transit (BART), and Amtrak provide transit service to the city. AC Transit provides interregional bus service throughout Richmond and Alameda County, Golden Gate Transit provides service between Marin County and the Richmond and Del Norte BART stations, and WestCAT provides service within western Contra Costa County. In addition, limited school, night, and supplemental bus services are provided. Existing transit route descriptions and frequencies are summarized in Table 6.1.

The Richmond BART station is located between Macdonald and Barrett avenues east of Marina Way. The El Cerrito Del Norte BART station located at Cutting Boulevard and San Pablo Avenue also serves the Merged Project Area. Future BART plans include an extension north to Crockett from either the Richmond or El Cerrito Del Norte station.

The Richmond Amtrak passenger rail service station is located adjacent to the Richmond BART station, providing intrastate service (see section 6.1.1(a) above).

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<sup>1</sup>City of Richmond, Westshore Marina Project Draft Environmental Impact Report; August 25, 2005; page 12-3.

Table 6.1  
**TRANSIT SERVICE IN THE CITY OF RICHMOND**

<u>Service Provider</u>	<u>Line</u>	<u>Route Description</u>	<u>Frequency</u>
AC Transit	70	Richmond BART to Contra Costa College	30 minutes – weekdays 60 minutes – weekends
AC Transit	71	Richmond Parkway Transit Center to El Cerrito Del Norte BART	30 minutes – weekdays 60 minutes – weekends
AC Transit	72	Castro Street/Tewksbury Avenue to Oakland Amtrak	10-20 minutes – weekday AM and PM peak periods 20-30 minutes – off-peak and weekends
AC Transit	74	Harbour Way South/Ford Point to Orinda BART	30-60 minutes – weekdays and weekends
AC Transit	76	Richmond Parkway Transit Center to El Cerrito Del Norte BART	30 minutes – weekdays and weekends
AC Transit	376	City route beginning and ending at El Cerrito Del Norte BART	30 minutes – nights
AC Transit	800	Richmond BART to Market Street/Van Ness Avenue (San Francisco)	30 minutes – weekend nights 60 minutes – weekday nights
Golden Gate Transit	40/42	San Rafael Transit Center to El Cerrito Del Norte BART	30 minutes – weekdays 60 minutes – weekends
WestCAT	16	Richmond Parkway Transit Center to Pinole Valley	30 minutes – weekdays
WestCAT	17	Richmond Parkway Transit Center to Bayview	70 minutes – weekday AM and PM peak periods
WestCAT	18	Richmond Parkway Transit Center to Tara Hills	70 minutes – weekday AM and PM peak periods
WestCAT	19	Hilltop Mall to Hercules Transit Center	30-40 minutes – weekdays and Saturdays
WestCAT	JR/JL	Richmond Parkway Transit Center/Hilltop Mall to El Cerrito Del Norte BART	10-35 minutes – weekdays 30-40 minutes – weekends
WestCAT	30Z	Richmond Parkway Transit Center to El Cerrito Del Norte BART	40-60 minutes – weekdays
BART	--	Richmond BART to Millbrae	15 minutes--weekdays and weekends
BART	--	Richmond BART to Fremont	15 minutes--weekdays and weekends
Amtrak Capitol Corridor	--	Richmond Intermodal West to San Jose	30-45 minutes--weekdays 60-90 minutes--weekends
Amtrak Capitol Corridor	--	Richmond Intermodal east to Sacramento	45-60 minutes--weekdays 60-120 minutes--weekends
Amtrak Capitol Corridor	--	Richmond Intermodal east to Stockton	3-5 hours--weekdays and weekends

SOURCE: AC Transit ([www.actransit.org](http://www.actransit.org)), Golden Gate Transit ([www.goldengatetransit.org](http://www.goldengatetransit.org)), and WestCAT (Western Contra Costa Transit Authority) ([www.westcat.org](http://www.westcat.org)), 2009.

### **6.1.3 Bicycle and Pedestrian Facilities**

The Richmond General Plan *Circulation Element* identifies a system of existing and planned on-street and off-street bicycle facilities in the Richmond planning area that is intended to provide a network of bike routes linking residential, commercial, recreational, and employment areas. Also, the City's standard Plans and Specifications provide guidelines for constructing pedestrian facilities associated with existing and future development.

In addition, ABAG has designated the San Francisco Bay Trail, a 400-plus-mile shared-use pedestrian and bicycle path system that will eventually provide for continuous travel around the bay for walkers and bicyclists. The city now includes approximately 20 miles of Bay Trail in use. The following existing (established) and planned extensions of the Bay Trail are located within or near the Merged Project Area:

- a planned "Richmond Greenway Trail" segment running east-west along Ohio Avenue through central Richmond, linking the Del Norte BART station in El Cerrito to the east with the San Pablo Peninsula to the west;
- an existing Bay Trail segment (pedestrian and bicycle path) running from points south, along the Richmond Parkway from I-580 to West Gertrude Avenue, and then extending to points north;
- a planned east-west Bay Trail segment along Seacliff Drive in southern Richmond, linking a planned north-south segment along Canal Boulevard to the existing Marina Bay segment of the trail; and
- a planned Bay Trail segment along the City's west, San Pablo Peninsula shoreline from Point Richmond to the San Pablo Yacht Harbor, traversing the shoreline edges of the Terminal 4 and Point San Pablo Yacht Harbor portions of the Merged Project Area.

### **6.1.4 Transportation System Analysis Methodology**

(a) Study Intersections. Intersections, rather than midblock roadway segments, are almost always the critical capacity-controlling locations for urban roadway networks. For purposes of this "program EIR," all intersections that were analyzed in the 1994 City of Richmond General Plan and Zoning Ordinance Updates EIR, 2005 Proposed Richmond Redevelopment Plan Amendment Program EIR, and 2008 Proposed Enterprise Zone Re-Designation Program EIR have been included as "study intersections" and have been evaluated to identify existing and future ("with project") operational conditions. The list of study intersections is as follows:

- 23rd Street/Barrett Avenue
- 23rd Street/Macdonald Avenue
- 23rd Street/Rheem Avenue
- Atlas Road/Richmond Parkway
- Blume Drive/Hilltop Drive
- Blume Drive/Richmond Parkway
- Canal Boulevard/Cutting Boulevard
- Canal Boulevard/I-580 eastbound ramps
- Canal Boulevard/I-580 westbound ramp
- Carlson Boulevard/Bayview Avenue
- Carlson Boulevard/Cutting Boulevard

- Castro Street/Hensley Street
- Castro Street/I-580 westbound ramps
- Garrard Boulevard/Hensley Street
- Garrard Boulevard/West Barrett Avenue
- Garrard Boulevard/West Macdonald Avenue
- Harbour Way/Pennsylvania Avenue
- Harbour Way/Cutting Boulevard
- Harbour Way/Macdonald Avenue
- I-580 westbound on/off ramps/Bayview Avenue
- I-80 eastbound on/off ramps/Central Avenue
- I-80 eastbound on/off ramps/Hilltop Drive
- I-80 eastbound on/off ramps/San Pablo Avenue
- I-80 westbound on/off ramps/Barrett Avenue
- I-80 westbound on/off ramps/Central Avenue
- I-80 westbound on/off ramps/Cutting Boulevard
- I-80 westbound on/off ramps/Hilltop Drive
- Marina Bay Parkway/I-580 eastbound on/off ramps
- Marina Bay Parkway/I-580 westbound on/off ramps
- Richmond Parkway/Gertrude Avenue
- Richmond Parkway/Goodrick Avenue
- Richmond Parkway/Hilltop Drive Extension
- Richmond Parkway/Parr Boulevard
- Robert H. Miller Drive/Hilltop Drive
- San Pablo Avenue/Barrett Avenue
- San Pablo Avenue/Hilltop Drive
- San Pablo Avenue/I-80 westbound ramp
- San Pablo Avenue/McBryde Avenue
- San Pablo Avenue/Richmond Parkway
- San Pablo Avenue/Robert H. Miller Drive
- South 23rd Street/Cutting Boulevard
- I-580 eastbound on/off ramps/Marine Street
- I-580/Western Drive

(b) Traffic Counts. As part of the CCTA traffic count program, new traffic counts were conducted during 2006 and 2007 at the majority of the listed study intersections.

### **6.1.5 Level of Service Definitions**

Following common transportation planning practice, existing and future ("with project") operational conditions at the listed study intersections have been evaluated for this EIR using *level of service* (LOS) calculations. *Level of service* (LOS) is a qualitative assessment of motorists' and passengers' perceptions of traffic conditions. The calculated LOS rating generally reflects driving conditions such as travel time and speed, freedom to maneuver, traffic interruptions, comfort, and convenience. Quantifiable traffic measurements such as average speeds, intersection delays, and volume-to-capacity (V/C) ratios are evaluated to determine level of service ratings, which typically range from "A" for most favorable to "F" for least favorable. LOS A represents free flow conditions, while LOS F indicates excessive delays and "traffic jam" conditions. LOS computation methodology varies by roadway type, reflecting the fact that user expectations and perceptions vary by roadway type.

LOS can be calculated by several different methods, depending upon the type of facility being analyzed and the level of detail required for the analysis. For this "program EIR" analysis, the levels of service for signalized intersections were derived for the AM and PM peak hours from the latest CCTA model run for west Contra Costa County, which used the CCTALOS software package. The CCTALOS software uses a modified Circular 212-based<sup>1</sup> planning method for the LOS analysis, where adjustments are made to reflect observed conditions in west Contra Costa County. The LOS computation is based on the intersection's volume-to-capacity (V/C) ratio. The associated LOS ranges are defined in Table 6.2.

Adopted City and CCTA LOS standards are described in detail in section 6.3.1(b) herein. In general, "Basic Route" operational ratings of D or better are considered acceptable for City intersections west of I-80 (i.e., in compliance with standards established in 1988 by Countywide Transportation Measure C), with the exception of the central business district, where "Basic Route" operational ratings of E or better are considered acceptable. Similarly, for intersections involving designated "Routes of Regional Significance," operational ratings of E or better are generally considered acceptable.

### **6.1.6 Existing Levels of Service**

Existing level of service conditions have been derived from the latest CCTA West County model run for all study intersections for existing conditions. The existing levels of service ratings and corresponding V/C ratios are indicated in Table 6.3. As shown, the recent traffic count and associated LOS computations indicate that none of the study intersections currently operate below LOS D in the AM or PM peak hour, and all study intersections currently operate at acceptable conditions.

## **6.2 PERTINENT PLANS AND POLICIES**

### **6.2.1 Richmond General Plan**

(a) Pertinent General Plan Policies. The City of Richmond General Plan Circulation Element (adopted 1994) contains the following policies that, in governing all project-related redevelopment activities and project-related development, would serve to mitigate associated adverse transportation and circulation impacts:

- *Place a priority on facilitating trips with origins and destinations within the community rather than on efforts to provide improvements for through trips. (Policy CIR-A.2)*
- *Apply consistent traffic control installation measures to mitigate traffic problems. (Policy CIR-A.3)*
- *Make maximum use of the existing transportation system. (Policy CIR-B.1)*
- *Use maintenance of an overall balance between jobs and housing in the community as a way to potentially reducing commute trips lengths, and therefore making better use of the existing transportation system. (Policy CIR-B.2)*

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<sup>1</sup>Transportation Research Board, *Interim Materials on Highway Capacity, Transportation Research Circular 212* (1980).

Table 6.2

DEFINITIONS OF LEVELS OF SERVICE FOR SIGNALIZED INTERSECTIONS

<u>Level of Service</u>	<u>Expected Delay</u>	<u>Range of Volume-to-Capacity (V/C) Ratio</u>
A	Little or no delay	< 0.60
B	Short traffic delays	0.601 – 0.70
C	Average traffic delays	0.701 – 0.80
D	Long traffic delays	0.801 – 0.90
E	Very long traffic delays	0.901 – 1.00
F	Extreme delays potentially affecting other traffic movements in the intersection	> 1.00

SOURCE: Contra Costa Transportation Authority (CCTA) and TJKM, *WCCTA 2030 Buildout Model Users' Manual*, page 46.

- *Maintain a safe, effective and attractive bicycle and pedestrian circulation system, with particular emphasis on ensuring new or existing developments are connected. (Policy CIR-B.3)*
- *Facilitate ancillary multi-modal transportation improvements (e. g., bus stops, bus shelters, transportation hubs, ferry terminals, bike racks) as part of the City's development process. (Policy CIR-B.4)*
- *Continue to develop, maintain, and update developing area fee structures which require developers to pay costs necessary to mitigate impacts of their developments on the local and regional transportation system. (Policy CIR-B.14)*
- *Balance the need for parking with the needs to promote the use of alternative modes and transit. (Policy CIR-C.1)*
- *Promote the use of alternatives to single-occupant automobiles to satisfy community transportation needs. (Policy CIR-C.2)*
- *Provide a network of bicycle routes offering safe and easy access to all portions of the City. (Policy CIR-C.3)*
- *Integrate bicycle facilities in new roadways. (Policy CIR-C.4)*
- *Encourage increases in the rate of high-occupancy vehicles during commute periods. (Policy CIR-C.5)*
- *Use parking management plans (e.g., park-and-ride, preferential car pool parking) to encourage high-occupancy vehicle trips. (Policy CIR-C.6)*

Table 6.3

**EXISTING INTERSECTION LEVELS OF SERVICE IN THE CITY OF RICHMOND**

Intersection	Volume-to-Capacity Ratio (Level of Service)	
	AM Peak Hour	PM Peak Hour
23 <sup>rd</sup> Street/Barrett Avenue	0.38 (A)	0.54 (A)
23 <sup>rd</sup> Street/Macdonald Avenue	0.34 (A)	0.52 (A)
23 <sup>rd</sup> Street/Rheem Avenue	0.53 (A)	0.63 (B)
Atlas Road/Richmond Parkway (b)	0.36 (A)	0.44 (A)
Blume Drive/Hilltop Drive (b)	0.18 (A)	0.35 (A)
Blume Drive/Richmond Parkway (b)	0.73 (C)	0.79 (C)
Canal Boulevard/Cutting Boulevard (b)	0.20 (A)	0.14 (A)
Canal Boulevard/I-580 eastbound ramps (b)	0.23 (A)	0.25 (A)
Canal Boulevard/I-580 westbound ramp (b)	0.54 (A)	0.22 (A)
Carlson Boulevard/Bayview Avenue	0.38 (A)	0.37 (A)
Carlson Boulevard/Cutting Boulevard	0.41 (A)	0.42 (A)
Castro Street/Hensley Street (b)	0.42 (A)	0.52 (A)
Castro Street/I-580 westbound ramps (a)	0.38 (A)	0.61 (B)
Garrard Boulevard/Hensley Street (b)	0.15 (A)	0.17 (A)
Garrard Boulevard/West Barrett Avenue (a)	0.32 (A)	0.32 (A)
Garrard Boulevard/West Macdonald Avenue (a)	0.37 (A)	0.65 (B)
Harbour Way/Pennsylvania Avenue	0.47 (A)	0.51 (A)
Harbour Way/Cutting Boulevard	0.85 (D)	0.54 (A)
Harbour Way/Macdonald Avenue	0.39 (A)	0.72 (C)
I-580 westbound on/off ramps/Bayview Avenue	0.20 (A)	0.42 (A)
I-80 eastbound on/off ramps/Central Avenue	0.38 (A)	0.52 (A)
I-80 eastbound on/off ramps/Hilltop Drive	0.50 (A)	0.36 (A)
I-80 eastbound on/off ramps/San Pablo Avenue	0.23 (A)	0.54 (A)
I-80 westbound on/off ramps/Barrett Avenue	0.62 (A)	0.58 (A)
I-80 westbound on/off ramps/Central Avenue	0.49 (A)	0.54 (A)
I-80 westbound on/off ramps/Cutting Boulevard	0.43 (A)	0.37 (A)
I-80 westbound on/off ramps/Hilltop Drive	0.40 (A)	0.40 (A)
Marina Bay Parkway/I-580 eastbound on/off ramps	0.18 (A)	0.25 (A)
Marina Bay Parkway/I-580 westbound on/off ramps	0.31 (A)	0.31 (A)
Richmond Parkway/Gertrude Avenue (a)	0.71 (C)	0.71 (C)
Richmond Parkway/Goodrick Avenue (b)	0.47 (A)	0.60 (A)
Richmond Parkway/Hilltop Drive Extension (b)	0.33 (A)	0.41 (A)
Richmond Parkway/Parr Boulevard (a)	0.69 (B)	0.62 (B)
Robert H. Miller Drive/Hilltop Drive	0.27 (A)	0.35 (A)
San Pablo Avenue/Barrett Avenue	0.42 (A)	0.64 (B)
San Pablo Avenue/Hilltop Drive	0.46 (A)	0.56 (A)
San Pablo Avenue/I-80 westbound ramp	0.57 (A)	0.51 (A)
San Pablo Avenue/McBryde Avenue	0.51 (A)	0.60 (A)
San Pablo Avenue/Richmond Parkway (b)	0.72 (C)	0.76 (C)
San Pablo Avenue/Robert H. Miller Drive	0.39 (A)	0.37 (A)
South 23 <sup>rd</sup> Street/Cutting Boulevard	0.53 (A)	0.61 (B)
I-580 eastbound on/off ramps/Marine Street (c)	0.14 (A)	0.18 (A)
I-580/Western Drive (c)	0.05 (A)	0.02 (A)

SOURCE: Dowling Associates, Inc., 2007.

NOTES:

Excerpted from the City of Richmond's 2005 Proposed Richmond Redevelopment Plan Amendment Program EIR and 2008 Proposed Enterprise Zone Re-Designation Program EIR, with the exception of the following analysis data as otherwise noted:

- (a) Bayside Plaza Traffic Analysis data (October 2004)
- (b) Based on 1998 Richmond Redevelopment Areas Merger and Amendments EIR data
- (c) Based on NFD Point Molate FEIS/EIS data (February 2002)

- *Encourage developers through the established permit process to include mass transit facilities within their projects and require them to coordinate with mass transit agencies to provide service to their projects. (Policy CIR-C.7)*
- *Encourage re-establishment of ferry service in Richmond as an alternative transportation mode. (Policy CIR-C.8)*
- *Encourage transit providers to coordinate schedules in order to reduce time in multi-modal transfers. (Policy CIR-C.9)*
- *Work with other affected agencies to ensure that transportation facilities are developed, and maintained, to the highest possible standard. (Policy CIR-D.1)*
- *Maintain level of service standards which comply with requirements of Countywide Transportation Measure C. (Policy CIR-D.3)*
- *Maintain level of service standards which comply with the West Contra Costa Transportation Committee's Action Plan standards for regional routes. (Policy CIR-D.4)*
- *Actively work with non-rail transit providers, such as AC Transit, West CAT and County Connection to strongly encourage the annexation of, or service to, all areas within Richmond's sphere of influence. (Policy CIR-D.7)*
- *Develop and implement transportation demand management (TDM) strategies in cooperation with other WCCTAC jurisdictions and agencies, and in the context of financial support from CCTA, as one way of meeting Measure C standards. (Policy CIR-D.9)*

It is not expected that the policies listed above will change substantially with the anticipated update of the General Plan now underway.

(b) Area-Specific Guidelines. The *Circulation Element*, *Community Facilities Element*, and *Open Space and Conservation Element* of the General Plan also contain the following relevant "area-specific guidelines" that, in governing all project-related redevelopment activities and project-related development, would serve to mitigate associated adverse transportation and circulation impacts:

**Shoreline Areas:**

- *Promote more effective movement of people to and within the shoreline areas by: (1) increased public transit service linked to BART; and (2) development of convenient bicycle and foot trails. (Circulation Element, Shoreline General Guideline 1)*
- *Build grade-separated railroad-street crossings to provide safe access to the following residential areas if alternative routes which do not cross tracks cannot be found: Parchester Village and Brickyard Cove (if construction of the Dornan Drive-Canal Boulevard loop is delayed, as the loop will relieve the grade crossing problem). (Circulation Element, Shoreline General Guideline 4)*
- *Encourage development of a system of hike/bike trails throughout the shoreline area as shown on Circulation Plan Map, 2. (Circulation Element, Shoreline General Guideline 5)*

- *Ensure that adequate bicycle and pedestrian pathways and crossings, linked to shoreline trails and mass transit, are built in connection with highway improvements. (Circulation Element, Shoreline General Guideline 6)*

*Point Isabel:*

- *Require, as a condition of development, provision of a pedestrian and bicycle link along the shoreline should any of the Point Isabel area shoreline be developed for other than park use. Devise public incentives and controls wherever possible for maintenance of private open space. Permit public access only to the edges of adjacent marshes along this trail. (Open Space and Conservation Element, Point Isabel Guideline 3)*
- *Establish a public access trail including Class 1 separated pedestrian and bicycling facilities as feasible, from the Albany City limit around Point Isabel to the Point Isabel Shoreline Park, then along the abandoned Santa Fe right-of-way to Meeker Slough and the new trail head at South 46th or 32nd Street. (Open Space and Conservation Element, Point Isabel Guideline 4)*
- *Promote and encourage the dedication of a trailhead at the end of South 46th or South 32nd Street as part of the University of California Field Station master plan. (Open Space and Conservation Element, Point Isabel Guideline 5)*
- *Establish a public access trail plan line, including pedestrian and bicycling facilities as feasible, from the new trailhead at the foot of South 46th or South 32nd Street along the street and across a pedestrian bridge over the Knox Freeway to Eastshore Park. (Open Space and Conservation Element, Point Isabel Guideline 6)*
- *Protect the hike/bike path from physical and visual intrusion by all forms of motorized vehicles to the greatest extent possible. Encourage provision of motor vehicle access at Point Isabel, the UC Field Station, and Marina Bay, with use of the trail itself restricted to pedestrians and bicycles. (Open Space and Conservation Element, Point Isabel Guideline 8)*

*Marina Bay:*

- *Encourage AC Transit to plan for public transportation to the Marina Bay area which will connect this area with inland areas and with BART. Promote the inclusion of facilities for buses in the development plans for the Redevelopment Project Area 11-A. (Circulation Element, Marina Bay Guideline 2)*
- *Develop a system of pathways for bicyclists and pedestrians which will connect all non-industrial development in the Marina Bay area and will connect the area to regional city-wide hike/bike trails. (Community Facilities Element, Marina Bay Guideline 3)*
- *Initiate and carry through coordinated planning to provide public access at points along Richmond's southern shoreline, from Point Isabel to and including the Marina Bay. (Open Space and Conservation Element, Marina Bay Guideline 2)*

- *Encourage provision of motor vehicle access at Point Isabel and Marina Bay, with use of the trail itself restricted to pedestrians and bicycles. (Open Space and Conservation Element, Marina Bay Guideline 3)*
- *Establish a public access trail plan line, including pedestrian and bicycling facilities, along Marina Way to the southeast tip of the Ford Peninsula and along the channel to the proposed park at the southwest corner of the Peninsula. (Open Space and Conservation Element, Marina Bay Guideline 4)*
- *Provide access for pedestrians and bicyclists around the shore of the basin and the Bay. See also LU Element, Area Specific Guidelines. (Open Space and Conservation Element, Marina Bay Guideline 7)*

#### *Santa Fe Channel Area:*

- *Undertake necessary roadway improvements in the Santa Fe Channel Area that will facilitate or promote safe and effective movement of goods and people, especially as related to the port terminals. (Circulation Element, Santa Fe Channel Guideline 1)*
- *Explore the possibility of combining rail lines and spurs into an efficient system of essential rail lines which will efficiently serve the industrial needs of this area and result in the least disruption of vehicular and pedestrian traffic. (Circulation Element, Santa Fe Channel Guideline 2)*
- *Encourage early completion of the Dornan Drive-Canal Boulevard loop which will relieve the existing potential hazard created by the lack of such a connection. This roadway should be designed according to the goals and policies established in the Circulation Element for a scenic route. (Circulation Element, Santa Fe Channel Guideline 4)*
- *Establish a public access trail plan line, including pedestrian and bicycling facilities, along Marina Way to the southeast tip of the Ford Peninsula and along the channel to the proposed park at the southwest corner of the Peninsula. (Open Space and Conservation Element, Santa Fe Channel Guideline 1)*

#### *North Shoreline:*

- *Establish a public access trail, including pedestrian and bicycling facilities, from Canal and Cutting Boulevards north to Point Pinole Regional Park. (Open Space and Conservation Element, North Shoreline Guideline 3)*

#### *Iron Triangle:*

- *Improvement of pedestrian circulation and mass transit within the central core should be encouraged to reduce the public dependence on the private automobile. (Circulation Element, Iron Triangle Guideline 2)*

#### *Pullman:*

- *Create and preserve safe pedestrian travelways to all important facilities in the area and in the vicinity. (Circulation Element, Pullman Guideline 2)*

### 6.3 IMPACTS AND MITIGATION MEASURES

This section identifies the potential transportation and circulation impacts of the projected cumulative 2030 growth scenario in Richmond, including project-facilitated development in the Merged Project Area, under the adopted land use designations and policies of the Richmond General Plan. Consistent with CEQA Guidelines section 15125(a), potential transportation impacts of the proposed project have been determined by comparing the projected 2030 "with project" growth scenario (i.e., the projected cumulative 2030 City growth scenario, which would be substantially facilitated by the proposed redevelopment plan amendment) to existing conditions (rather than to the projected "without project" growth scenario). Project impacts have been determined following the applicable guidelines set forth by the City and the CCTA.

#### **6.3.1 Significance Criteria**

(a) General Criteria. Based on the CEQA Guidelines, the proposed redevelopment plan amendment program and associated year 2030 growth scenario would be considered in this EIR to create a significant impact on transportation or circulation conditions if they would:<sup>1</sup>

- (1) cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections);
- (2) exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways;
- (3) substantially increase hazards due to a design feature (i.e., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- (4) result in inadequate emergency access;
- (5) result in inadequate parking capacity; or
- (6) conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

(b) Richmond General Plan Roadway Operational Criteria. The significance of projected roadway system impacts for the projected redevelopment plan amendment-facilitated year 2030 cumulative growth scenario has been determined based on level of service criteria set forth in the Richmond General Plan *Circulation Element* and on CCTA policies.

The City's General Plan *Circulation Element* sets forth the following two policies relevant to level of service (LOS) standards:

- (1) *Maintain level of service standards which comply with requirements of the Countywide Transportation Measure C.* (Policy CIR-D.3)

In 1988, Measure C was approved by Contra Costa County voters, putting in place a half-percent sales tax to help fund transportation improvements within Contra Costa County. The Contra Costa Transportation Authority (CCTA) Growth Management Program was

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<sup>1</sup>CEQA Guidelines, Appendix G, Items XV(a) and XV(d) through XV(g).

established as a tool to help implement the goals of Measure C. The program established Traffic Service Objectives (TSOs) for *Routes of Regional Significance* and level of service standards for *Basic Routes*.

The Measure C level of service standards for *Basic Routes* varies by land use type. Land use in the City is generally classified under Measure C as Urban, Suburban, or Central Business District. For Urban areas, generally west of I-80, the LOS standard for signalized intersections on *Basic Routes* is "High-D" (maximum V/C of 0.90). For Suburban Areas, generally east of I-80, the standard is "Low-D" (maximum V/C of 0.85). For the Central Business District, the standard for signalized intersections is "Low-E" (maximum V/C of 0.95).

- (2) *Maintain level of service standards which comply with the West Contra Costa County Transportation Committee's Action Plan standards for regional routes.* (Policy CIR-D.4)

The CCTA-adopted Action Plan for Routes of Regional Significance fulfills the mandate of Contra Costa County Measure C to determine traffic service standards for *Routes of Regional Significance* and to address multi-jurisdictional transportation planning issues. The Action Plan established traffic service objectives (TSOs) for all signalized intersections along *Routes of Regional Significance*. These TSOs have been established as a means for measuring quantitatively whether the countywide goals have been or are being achieved.

The CCTA Action Plan has established LOS standards for Routes of Regional Significance. For any applicable regional roadway that fails to satisfy these CCTA LOS standards, a "deficiency plan" must be prepared to address how the deficiency will be remedied.

Significance criteria consistent with the City and CCTA policies and programs described above have been used to assess the roadway system impacts of the project-related 2030 growth scenario. The significance thresholds applied to evaluate traffic operations are listed in Table 6.4. If the traffic under the cumulative "with project" scenario would cause the LOS at a study intersection to drop below the thresholds in the table, a *significant traffic impact* would result.

### **6.3.2 Assumed Future Roadway Modifications**

The following planned, officially adopted and programmed regional roadway improvements have been assumed in the CCTA West County travel model for its forecast of year 2030 condition:<sup>1</sup>

- Widening of Barrett Avenue between 6th Street and Garrard Boulevard to four lanes;
- Reconstruction of Atlas Road between Richmond Parkway and Giant Highway to a four-lane minor arterial;
- Widening of Regatta Boulevard between Marina Way and South 23<sup>rd</sup> Street to four lanes;
- Construction of Meeker Avenue between Harbour Way and Meade Street as a four-lane major arterial; and

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<sup>1</sup>West Contra Costa County Travel Demand Model, Volume 1: Final Technical Report, Appendix B: Year 2000 and 2010 Transportation Network Improvements.

Table 6.4  
LEVEL OF SERVICE THRESHOLDS FOR SIGNIFICANT TRAFFIC IMPACTS

<u>Intersection</u>	<u>Level of Service (LOS) Standard</u>
23 <sup>rd</sup> Street/Barrett Avenue	D
23 <sup>rd</sup> Street/Macdonald Avenue	D
23 <sup>rd</sup> Street/Rheem Avenue	D
Atlas Road/Richmond Parkway	D
Blume Drive/Hilltop Drive	Low E
Blume Drive/Richmond Parkway	D
Canal Boulevard/Cutting Boulevard	E
Canal Boulevard/I-580 eastbound ramps	D
Canal Boulevard/I-580 westbound ramp	D
Carlson Boulevard/Bayview Avenue	D
Carlson Boulevard/Cutting Boulevard	E
Castro Street/Hensley Street	D
Castro Street/I-580 westbound ramps	D
Garrard Boulevard/Hensley Street	D
Garrard Boulevard/West Barrett Avenue	D
Garrard Boulevard/West Macdonald Avenue	D
Harbour Way/Pennsylvania	D
Harbour Way/Cutting Boulevard	E
Harbour Way/Macdonald Avenue	Low E
I-580 westbound on/off ramps/Bayview Avenue	High D
I-80 eastbound on/off ramps/Central Avenue	High D
I-80 eastbound on/off ramps/Hilltop Drive	Low E
I-80 eastbound on/off ramps/San Pablo Avenue	E
I-80 westbound on/off ramps/Barrett Avenue	High D
I-80 westbound on/off ramps/Central Avenue	High D
I-80 westbound on/off ramps/Cutting Boulevard	D
I-80 westbound on/off ramps/Hilltop Drive	Low E
Marina Bay Parkway/I-580 eastbound on/off ramps	D
Marina Bay Parkway/I-580 westbound on/off ramps	D
Richmond Parkway/Gertrude Avenue	D
Richmond Parkway/Goodrick Avenue	D
Richmond Parkway/Hilltop Drive Extension	D
Richmond Parkway/Parr Boulevard	D
Robert H. Miller Drive/Hilltop Drive	Low E
San Pablo Avenue/Barrett Avenue	F
San Pablo Avenue/Hilltop Drive	E
San Pablo Avenue/I-80 westbound ramp	E
San Pablo Avenue/McBryde Avenue	E
San Pablo Avenue/Richmond Parkway	E
San Pablo Avenue/Robert H. Miller Drive	E
South 23 <sup>rd</sup> Street/Cutting Boulevard	D

SOURCE: CCTA, Contra Costa Countywide Comprehensive Transportation Plan, 1995.  
 CCTA, 1995 Contra Costa Congestion Management Program Update, 1995.  
 WCCTA, Action Plan for Routes of Regional Significance, 1994.

- Widening of San Pablo Avenue between Potrero Avenue and Cutting Boulevard to six lanes.

### **6.3.3 Cumulative (With Project) Impacts on Road System Operation**

Project-facilitated development within the Merged Project Area would contribute to increased traffic on the local and regional roadways within the city and greater West Contra Costa County. For purposes of “worst case” environmental impact analysis, the impact evaluations in this EIR are based on the assumption that (a) the proposed combination of redevelopment plan amendment actions described in section 3.4.1 (General Purposes and Actions) of chapter 3 (Project Description) herein would be fully successful in facilitating desired economic development and revitalization; and (b) as a result, the Merged Project Area would experience a substantial increase in the rate of industrial, commercial, retail, office, residential and institutional buildout under existing and future General Plan policies; and (c) the majority of that development would occur by the year 2030. *The actual increment of growth in the Merged Project Area between now and 2030 with the proposed redevelopment plan amendment may eventually prove to be substantially less than what has been assumed in this EIR.*

Tables 6.5 and 6.6 list projected year 2030 V/C and LOS conditions for the study intersections for the following scenarios:

- "Existing Conditions" (from Table 6.3); and
- the "Year 2030 General Plan Buildout" scenario, which includes anticipated year 2030 cumulative buildout, including all General Plan-consistent growth anticipated by the CCTA West County Travel Demand Model which would be substantially facilitated by the proposed redevelopment plan amendment.

As shown in Tables 6.5 and 6.6, General Plan-consistent growth would generate traffic that is expected to cause **significant impacts** (i.e., traffic conditions exceeding the LOS standard) at the following study intersections in the AM and/or PM peak hours (as noted):

- Blume Drive/Richmond Parkway (AM/PM),
- Carlson Boulevard/Cutting Boulevard (PM),
- Castro Street/I-580 westbound ramps (PM),
- Harbour Way/Pennsylvania Avenue (AM/PM),
- Harbour Way/Cutting Boulevard (AM),
- I-580 westbound on/off ramps/Bayview Avenue (PM),
- I-80 eastbound on/off ramps/Central Avenue (PM),
- I-80 westbound on/off ramps/Barrett Avenue (AM),
- I-80 westbound on/off ramps/Central Avenue (AM),
- Richmond Parkway/Gertrude Avenue (AM/PM),
- Richmond Parkway/Goodrick Avenue (PM),
- Richmond Parkway/Parr Boulevard (AM/PM),
- San Pablo Avenue/McBryde Avenue (PM), and
- South 23<sup>rd</sup> Street/Cutting Boulevard (PM).

Table 6.5  
PROJECTED 2030 CUMULATIVE INTERSECTION IMPACTS--AM PEAK HOUR

Intersection	Volume-to-Capacity Ratio (Level of Service)	
	Existing Conditions <sup>(1)</sup>	Adopted General Plan Buildout With Project <sup>(2)</sup>
23 <sup>rd</sup> Street/Barrett Avenue	0.38 (A)	0.55 (A)
23 <sup>rd</sup> Street/Macdonald Avenue	0.34 (A)	0.43 (A)
23 <sup>rd</sup> Street/Rheem Avenue	0.53 (A)	0.67 (B)
Atlas Road/Richmond Parkway	0.36 (A)	0.84 (D)
Blume Drive/Hilltop Drive	0.18 (A)	0.29 (A)
Blume Drive/Richmond Parkway	0.73 (C)	<b>1.51 (F)</b>
Canal Boulevard/Cutting Boulevard	0.20 (A)	0.25 (A)
Canal Boulevard/I-580 eastbound ramps	0.23 (A)	0.75 (C)
Canal Boulevard/I-580 westbound ramp	0.54 (A)	0.80 (C)
Carlson Boulevard/Bayview Avenue	0.38 (A)	0.58 (A)
Carlson Boulevard/Cutting Boulevard	0.41 (A)	0.71 (C)
Castro Street/Hensley Street	0.42 (A)	0.44 (A)
Castro Street/I-580 westbound ramps	0.38 (A)	0.42 (A)
Garrard Boulevard/Hensley Street	0.15 (A)	0.44 (A)
Garrard Boulevard/West Barrett Avenue	0.32 (A)	0.68 (B)
Garrard Boulevard/West Macdonald Avenue	0.37 (A)	0.74 (C)
Harbour Way/Pennsylvania Avenue	0.47 (A)	<b>1.35 (F)</b>
Harbour Way/Cutting Boulevard	0.85 (D)	<b>1.05 (F)</b>
Harbour Way/Macdonald Avenue	0.39 (A)	0.76 (C)
I-580 westbound on/off ramps/Bayview Avenue	0.20 (A)	0.25 (A)
I-80 eastbound on/off ramps/Central Avenue	0.38 (A)	0.47 (A)
I-80 eastbound on/off ramps/Hilltop Drive	0.50 (A)	0.87 (D)
I-80 eastbound on/off ramps/San Pablo Avenue	0.23 (A)	0.54 (A)
I-80 westbound on/off ramps/Barrett Avenue	0.62 (A)	<b>1.02 (F)</b>
I-80 westbound on/off ramps/Central Avenue	0.49 (A)	<b>1.27 (F)</b>
I-80 westbound on/off ramps/Cutting Boulevard	0.43 (A)	0.50 (A)
I-80 westbound on/off ramps/Hilltop Drive	0.40 (A)	0.57 (A)
Marina Bay Parkway/I-580 eastbound on/off ramps	0.18 (A)	0.22 (A)
Marina Bay Parkway/I-580 westbound on/off ramps	0.31 (A)	0.40 (A)
Richmond Parkway/Gertrude Avenue	0.71 (C)	<b>1.05 (F)</b>
Richmond Parkway/Goodrick Avenue	0.47 (A)	0.81 (D)
Richmond Parkway/Hilltop Drive Extension	0.33 (A)	0.73 (C)
Richmond Parkway/Parr Boulevard	0.69 (B)	<b>1.00 (E)</b>
Robert H. Miller Drive/Hilltop Drive	0.27 (A)	0.36 (A)
San Pablo Avenue/Barrett Avenue	0.42 (A)	0.88 (D)
San Pablo Avenue/Hilltop Drive	0.46 (A)	0.73 (C)
San Pablo Avenue/McBryde Avenue	0.51 (A)	0.96 (E)
San Pablo Avenue/Richmond Parkway	0.72 (C)	0.72 (C)
San Pablo Avenue/Robert H. Miller Drive	0.39 (A)	0.54 (A)
South 23 <sup>rd</sup> Street/Cutting Boulevard	0.53 (A)	0.74 (C)
I-580 eastbound on/off ramps/Marine Street	0.14 (A)	0.31 (A)
I-580/Western Drive	0.05 (A)	0.08 (A)

SOURCE: Dowling Associates, Inc., 2007.

NOTES:

<sup>(1)</sup> From Table 6.3 herein.

<sup>(2)</sup> Latest Contra Costa Transportation Authority (CCTA) West County Travel Demand Model was used by Dowling Associates, Inc. to produce these results. "Adopted General Plan Buildout" scenario includes anticipated year 2030 cumulative buildout, including project-facilitated growth, plus all other General Plan-consistent growth anticipated by the CCTA traffic model.

**BOLD** = significant impact

Table 6.6  
PROJECTED 2030 CUMULATIVE INTERSECTION IMPACTS--PM PEAK HOUR

Intersection	Volume-to-Capacity Ratio (Level of Service)	
	Existing Conditions <sup>(1)</sup>	Adopted General Plan Buildout With Project <sup>(2)</sup>
23 <sup>rd</sup> Street/Barrett Avenue	0.54 (A)	0.71 (C)
23 <sup>rd</sup> Street/Macdonald Avenue	0.52 (A)	0.70 (B)
23 <sup>rd</sup> Street/Rheem Avenue	0.63 (B)	0.79 (C)
Atlas Road/Richmond Parkway	0.44 (A)	0.90 (D)
Blume Drive/Hilltop Drive	0.35 (A)	0.42 (A)
Blume Drive/Richmond Parkway	0.79 (C)	<b>1.04 (F)</b>
Canal Boulevard/Cutting Boulevard	0.14 (A)	0.31 (A)
Canal Boulevard/I-580 eastbound ramps	0.25 (A)	0.37 (A)
Canal Boulevard/I-580 westbound ramp	0.22 (A)	0.47 (A)
Carlson Boulevard/Bayview Avenue	0.37 (A)	0.61 (B)
Carlson Boulevard/Cutting Boulevard	0.53 (A)	<b>1.07 (F)</b>
Castro Street/Hensley Street	0.52 (A)	0.87 (D)
Castro Street/I-580 westbound ramps	0.61 (B)	<b>0.94 (E)</b>
Garrard Boulevard/Hensley Street	0.17 (A)	0.28 (A)
Garrard Boulevard/West Barrett Avenue	0.32 (A)	0.50 (A)
Garrard Boulevard/West Macdonald Avenue	0.65 (B)	0.78 (C)
Harbour Way/Pennsylvania Avenue	0.51 (A)	<b>0.92 (E)</b>
Harbour Way/Cutting Boulevard	0.54 (A)	0.77 (C)
Harbour Way/Macdonald Avenue	0.72 (C)	0.86 (D)
I-580 westbound on/off ramps/Bayview Avenue	0.42 (A)	<b>1.16 (F)</b>
I-80 eastbound on/off ramps/Central Avenue	0.52 (A)	<b>0.98 (E)</b>
I-80 eastbound on/off ramps/Hilltop Drive	0.36 (A)	0.63 (B)
I-80 eastbound on/off ramps/San Pablo Avenue	0.54 (A)	0.86 (D)
I-80 westbound on/off ramps/Barrett Avenue	0.58 (A)	0.75 (C)
I-80 westbound on/off ramps/Central Avenue	0.54 (A)	0.78 (C)
I-80 westbound on/off ramps/Cutting Boulevard	0.37 (A)	0.37 (A)
I-80 westbound on/off ramps/Hilltop Drive	0.40 (A)	0.57 (A)
Marina Bay Parkway/I-580 eastbound on/off ramps	0.25 (A)	0.28 (A)
Marina Bay Parkway/I-580 westbound on/off ramps	0.31 (A)	0.39 (A)
Richmond Parkway/Gertrude Avenue	0.71 (C)	<b>1.19 (F)</b>
Richmond Parkway/Goodrick Avenue	0.60 (A)	<b>1.05 (F)</b>
Richmond Parkway/Hilltop Drive Extension	0.41 (A)	0.84 (D)
Richmond Parkway/Parr Boulevard	0.62 (B)	<b>1.08 (F)</b>
Robert H. Miller Drive/Hilltop Drive	0.35 (A)	0.48 (A)
San Pablo Avenue/Barrett Avenue	0.64 (B)	0.98 (E)
San Pablo Avenue/Hilltop Drive	0.56 (A)	0.82 (D)
San Pablo Avenue/McBryde Avenue	0.60 (A)	<b>1.09 (F)</b>
San Pablo Avenue/Richmond Parkway	0.76 (C)	0.81 (D)
San Pablo Avenue/Robert H. Miller Drive	0.37 (A)	0.45 (A)
South 23 <sup>rd</sup> Street/Cutting Boulevard	0.61 (B)	<b>1.07 (F)</b>
I-580 eastbound on/off ramps/Marine Street	0.18 (A)	0.32 (A)
I-580/Western Drive	0.02 (A)	0.03 (A)

SOURCE: Dowling Associates, Inc., 2007.

NOTES:

<sup>(1)</sup> From Table 6.3 herein.

<sup>(2)</sup> Latest Contra Costa Transportation Authority (CCTA) West County Travel Demand Model was used by Dowling Associates, Inc. to produce these results. "Adopted General Plan Buildout" scenario includes anticipated year 2030 cumulative buildout, including project-facilitated growth, plus all other General Plan-consistent growth anticipated by the WCCTA traffic model.

**BOLD** = significant impact

Impacts and mitigations 6-1 and 6-2 below summarize the identified cumulative (with project) traffic impacts and mitigation requirements for the currently anticipated 2030 redevelopment plan amendment program scenario.

**Impact 6-1: Peak Hour Operational Impacts on Intersections (With-Project Condition).** Roadway traffic generated by project-facilitated development in the Merged Project Area under the land use policies of the adopted Richmond General Plan would contribute substantially to significant 2030 cumulative intersection impacts at the following 14 intersections in the AM and PM peak hours (as previously noted):

- Blume Drive/Richmond Parkway (AM/PM),
- Carlson Boulevard/Cutting Boulevard (PM),
- Castro Street/I-580 westbound ramps (PM),
- Harbour Way/Pennsylvania Avenue (AM/PM),
- Harbour Way/Cutting Boulevard (AM),
- I-580 westbound on/off ramps/Bayview Avenue (PM),
- I-80 eastbound on/off ramps/Central Avenue (PM),
- I-80 westbound on/off ramps/Barrett Avenue (AM),
- I-80 westbound on/off ramps/Central Avenue (AM),
- Richmond Parkway/Gertrude Avenue (AM/PM),
- Richmond Parkway/Goodrick Avenue (PM),
- Richmond Parkway/Parr Boulevard (AM/PM),
- San Pablo Avenue/McBryde Avenue (PM), and
- South 23<sup>rd</sup> Street/Cutting Boulevard (PM).

The 2030 cumulative-with-project impacts would create the need for improvements at these intersections in order to maintain the City's desired level of service.

The substantial project contributions to anticipated cumulative deteriorations in operation at these 14 intersections would represent a **significant project and cumulative impact** (see criteria a.1, a.2, b.1, and b.2 in subsection 6.3.1, "Significance Criteria").

**Mitigation 6-1.** Consistent with Richmond General Plan Policy CIR-B.14, the City shall use its Capital Improvement Program (CIP), development dedications, public facilities fees, and other mechanisms to finance transportation needs and improvements, including the intersection improvements necessitated by this cumulative-with-project impact. The City shall set priorities for intersection improvements to ensure that funding is allocated as necessary to serve anticipated General Plan-designated growth in the Merged Project Area.

Consistent with General Plan Policy CIR-B.14, all new discretionary development projects assisted by the redevelopment plan amendment-authorized redevelopment program shall be required to pay their fair share of the cost of constructing needed transportation facilities. All essential improvements shall be installed prior to or concurrent with such new development or phased as specified in applicable individual environmental documents and/or conditions of approval. Also, consistent with General Plan policies, the City shall pursue, and the Redevelopment Agency shall consider providing appropriate assistance to, General Plan-identified transit improvement needs and other alternative transportation programs that help to reduce cumulative traffic on roads.

Specific future discretionary development projects within the Merged Project Area would be subject to General Plan policies CIR-B.3, CIR-B.4, CIR-B.14, CIR-C.1, CIR-C.2, CIR-C.6, and CIR-C.7 that would help to reduce most potential project-related transportation and circulation impacts. In addition, the City and the Congestion Management Agency (CCTA) require project-specific traffic studies and associated mitigation programs for projects generating 100 or more peak hour trips.

However, implementation of intersection improvements would require fair share funding programs that are not sufficiently developed at this time. Some of the improvements may be delayed such that implementation may not generally coincide with the timing of project-facilitated development in the Merged Project Area. As a result of these two factors, implementation of the necessary intersection improvements cannot be guaranteed solely through City or Redevelopment Agency action. No other mitigation is currently available. Consequently, the project would contribute substantially to this **significant unavoidable project and cumulative impact**.

**Impact 6-2: Inadequate Roadway Access to San Pablo Peninsula.** Western Drive is the only route of ingress to and egress from the Point San Pablo portion of the Merged Project Area--i.e., the Terminal 4 and Point San Pablo Yacht Harbor subareas. Western Drive is currently a one- and two-lane road in poor condition. Anticipated future redevelopment-facilitated development along with other potential development in the Point San Pablo area would cause a cumulative increase in traffic that is substantial in relation to the existing traffic load and capacity of Western Drive and the Western Drive connections to I-580. This effect would represent a **significant project and cumulative impact** (see criteria a.3 and a.4 in subsection 6.3.1, "Significance Criteria").

Western Drive provides the only vehicular access to the Terminal 4 and Point San Pablo Yacht Harbor subareas of the Point San Pablo area. Western Drive currently includes two-lane and single-lane paved and unpaved segments. The existing Western Drive/I-580 connection is limited to a westbound on- and off-ramp and an eastbound on-ramp. No eastbound off-ramp is provided. For eastbound, inbound traffic to reach Western Avenue under current conditions, motorists must exit I-580 toward Point Richmond and use the I-580 westbound on-ramp at Richmond Parkway to re-enter the I-580 corridor. The existing on- and off-ramps may not provide sufficient operational capacity for cumulative traffic increases associated with redevelopment of these two project subareas plus other potential development.

As discussed in chapter 3, Project Description, the proposed redevelopment plan amendment authorized redevelopment program would assist with the abatement of deficiencies such as inadequate street and alley layout in the Merged Project Area. This aspect of the project would help to offset the impacts of inadequate roadway access to the San Pablo Peninsula.

**Mitigation 6-2.** The City shall condition approval of future development projects in the Point San Pablo area on completion of a *North San Pablo Peninsula Traffic Impact and Mitigation Study* that, to the satisfaction of the City Engineer and Caltrans, describes project-specific and cumulative improvement needs for the Western Drive vehicular access network (including the Western Drive/I-580 interchange), and associated project-specific fair-share implementation, sufficient to meet City and Contra Costa Transportation Authority (CCTA) operational standards. Implementation of this measure would reduce this impact to a **less-than-significant level**.

#### **6.3.4 Impacts on Transit**

**Increased Demand for Transit Service.** Project-facilitated development in the Merged Project Area would generate increased demand for local and interregional transit services but would not be expected to have a significant adverse impact on these services. It is expected that any project-facilitated increase in transit ridership could be accommodated by existing and planned service provisions without unduly affecting the adequacy of public transit services. The proposed redevelopment activities within the Merged Project Area would not be expected to

disrupt, interfere, or conflict with existing or planned transit services. As indicated in section 3.4.1 (General Purposes and Actions) and section 3.4.2 (Anticipated Programs and Activities) in chapter 3, Project Description, the redevelopment plan amendment program proposes to facilitate public transit opportunities to and within the Merged Project Area to the extent feasible (see fifth "bullet" on page 3-8 and subsection [e] on page 3-10). The increased demand for transit service associated with the Merged Project Area would therefore represent a ***less-than-significant impact***.

**Mitigation.** No significant impacts have been identified; no mitigation is required.

### **6.3.5 Impacts on Bicycle and Pedestrian Systems**

**Increased Bicycle and Pedestrian Traffic.** Project-facilitated development in the Merged Project Area may generate additional traffic on existing and planned bicycle and pedestrian facilities. It is expected that increased bicycle and pedestrian traffic associated with the project could be accommodated by existing and planned facilities. As discussed in chapter 3, Project Description, the redevelopment plan amendment program proposes to assist with implementation of pedestrian and bike safety programs, including street and sidewalk improvements, traffic calming projects, and expansion or improvement of the local bike network (see second "bullet" on page 3-11 in chapter 3, Project Description). This impact potential is therefore considered to be ***less-than-significant***.

**Mitigation.** No significant impacts have been identified; no mitigation is required.

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## 7. INFRASTRUCTURE AND PUBLIC SERVICES

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This EIR chapter describes the setting, project impacts, and necessary mitigation measures pertaining to infrastructure and public services, including water, sewer service, police service, fire protection and emergency medical service, schools, parks and recreation, and solid waste and recycling.

### 7.1 WATER

#### 7.1.1 Setting

The East Bay Municipal Utility District (EBMUD) supplies water to the City of Richmond, including the Merged Project Area. Potable water is provided through the San Pablo Reservoir from supplies drawn from the Mokelumne River in the Sierra Nevada mountains and local rain-fed reservoirs. EBMUD has water rights and contracts for up to 325 million gallons of water per day (mgd) from the Mokelumne River, as well as supplemental entitlements to American River water, to be used during droughts if necessary.<sup>1</sup>

EBMUD's Central Pressure Zone (EBMUD's largest pressure zone) and Aqueduct Pressure Zone serve the majority of the Merged Project Area and vicinity. Other pressure zones serving these areas include the Nicholl Knob Pressure Zone and the Road 24 Pressure Zone. Most local streets in the Merged Project Area vicinity are equipped with water lines, with pipe sizes ranging from 6 to 24 inches. EBMUD also owns and operates transmission pipelines throughout the Merged Project Area vicinity that range in size from 20 to 42 inches in diameter, along with a 12-inch distribution pipeline in Western Drive serving the northern San Pablo Peninsula that is the sole connection to Potrero Reservoir located in the Central Pressure Zone.<sup>2</sup>

The quality of drinking water in Richmond, as in other cities throughout the Bay Area, has diminished in recent years as a result of various factors including increased use and periodic drought. With planned improvements, EBMUD expects to meet projected demand through 2020.<sup>3</sup> EBMUD drinking water is sampled and tested extensively and frequently throughout the

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<sup>1</sup>Ford Assembly Building Reuse Project, Mitigated Negative Declaration, May 2004, page 107.

<sup>2</sup>Letters from William R. Kirkpatrick, Manager of Water Distribution Planning, EBMUD, to Morty Prisament, Senior Planner, City of Richmond Planning Department, September 16, 2004, page 1; and to Steve Duran, Executive Director, Richmond Redevelopment Agency, January 21, 2005, page 1.

<sup>3</sup>Draft Environmental Impact Report for the Proposed Richmond Redevelopment Plan (10-B Nevin) Amendment Program, March 2005, page 7-1.

water distribution system and compared with water quality standards established by the U.S. Environmental Protection Agency and the California Department of Health Services.<sup>1</sup>

The Merged Project Area overlaps the proposed service area of EBMUD's North Richmond Water Reclamation Plant Expansion Project, which would allow for use of recycled water for appropriate uses in these areas.<sup>2</sup>

### **7.1.2 Pertinent Plans and Policies**

(a) City of Richmond General Plan. The City of Richmond General Plan contains the following policies that, in governing all project-related redevelopment activities and project-related discretionary development, would serve to mitigate associated adverse water service impacts:

- *Comply with and maintain compliance with performance standards for...water...established in Richmond's Growth Management Element, and apply the standards to Richmond's development review process. (Policy GM-B.1)*
- *Ensure that the new development pays its share of the costs associated with the provision of facilities for...water...by attaching project specific mitigation requirements as conditions of approval. (Policy GM-B.2)*
- *Coordinate with East Bay Municipal Utility District (EBMUD) to ensure an adequate water system for existing and future residents and to maintain adequate water reserves. (Policy CF-H.1)*
- *City will implement the Growth Management Element and Program so as to ensure that any new development shall be approved only if the infrastructure performance standards contained in the Growth Management Element are met. (Implementation Program CF-H.1)*
- *City will continue to conduct environmental impact assessments, and to require EIRs where necessary, for all substantial new developments proposed in Richmond. The City will notify, and include in the environmental assessment process, applicable local and regional agencies providing public infrastructure facilities. (Implementation Program CF-H.2)*
- *City will continue to practice water conservation and achieve water use savings in management of parks and requirements for landscape design development. (Implementation Program CF-H.3)*
- *Encourage new development in areas already served by water tanks or reservoirs to minimize costs of public services, increase water conservation and preserve open space. (Policy OSC-J.3)*

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<sup>1</sup>Letter from William R. Kirkpatrick, Manger of Water Distribution Planning, EBMUD, to Steven Duran, Executive Director, Richmond Redevelopment Agency, April 15, 2005, page 2.

<sup>2</sup>Letters from William R. Kirkpatrick, Manager of Water Distribution Planning, EBMUD, to Morty Prisament, Senior Planner, City of Richmond Planning Department, September 16, 2004, pages 2-3; and to Steve Duran, Executive Director, Richmond Redevelopment Agency, January 21, 2005, pages 1-2.

- *City will continue to implement minimum water requirements in the landscaping of new public and private development, such as by using native plants. (Implementation Program OSC-J.3)*

Performance standards of the City of Richmond General Plan Growth Management Element specify that, before approving new development, the City will verify with EBMUD that adequate water quantity and quality can be provided.<sup>1</sup>

It is not expected that the policies listed above will change substantially with the anticipated update of the General Plan now underway.

(b) Point Molate Master Utility Plan/Capital Improvement Plan. The City's 1999 Master Utility Plan/Capital Improvement Plan for the Point Molate site, located south of the Point San Pablo portion of the Merged Project Area, calls for reusing the existing water system on that site to the extent possible. The plan indicates that the EBMUD 12-inch water main along Western Drive, which runs through the Point Molate site, would serve as the backbone for future expansion on the site.<sup>2</sup> These provisions are also pertinent to the water supply for development in the Point San Pablo portion of the Merged Project Area, if and when development in that area is proposed.

### **7.1.3 Significance Criteria**

Based on the CEQA Guidelines,<sup>3</sup> the proposed redevelopment plan amendment program and program-facilitated growth would create a significant environmental impact related to water supply and service if they would:

- (a) require or result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; or
- (b) require new or expanded water entitlements.

### **7.1.4 Impacts and Mitigation Measures**

**Impacts on Water Service.** The proposed redevelopment plan amendment would facilitate development consistent with the General Plan that would in turn increase water demand in Richmond. Since discretionary development within the Merged Project Area would be undertaken in accordance with General Plan land use designations and zoning regulations (as explained in section 1.2.4, Future Development Assumptions, in chapter 1, Introduction, of this EIR), and/or consistent with discretionary actions subject to environmental review, water demand within the Merged Project Area would be consistent with City plans. All discretionary development facilitated by the redevelopment plan amendment would incorporate policies, programs, and regulations to mitigate potential impacts on water supply, as explained in the

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<sup>1</sup>Draft Environmental Impact Report for the Proposed Richmond Redevelopment Plan (10-B Nevin) Amendment Program, March 2005, page 7-3.

<sup>2</sup>Utility Study, Master Utility Plan, Capital Improvement Plan, Point Molate, California, February 1999 (revised May 1999), page vii.

<sup>3</sup>CEQA Guidelines, Appendix G, Items XVI(b) and XVI(d).

Richmond General Plan EIR.<sup>1</sup> Specifically applicable provisions cited in the General Plan EIR include General Plan Policies GM-B.1, GM-B.2, CF-H.1, CF-H.2, CF-H.3, and OSC-J.3; and Implementation Programs CF-H.1 and CF-H.2 (see section 7.1.2, Pertinent Plans and Policies, above). These provisions require compliance with performance standards established in the Richmond General Plan *Growth Management Element*, application of these standards in the City's development review process, coordination of development review with EBMUD, and the requirement that new development pay its share of the costs associated with provision of water facilities through project-specific mitigations required as conditions of approval.<sup>2</sup> These provisions would be applied to individual discretionary development projects as they are proposed and approved and would allow consideration of project-specific issues of concern to EBMUD, such as (1) the need for water supply assessments in accordance with the CEQA Guidelines (section 15083.5) and the California Water Code (sections 10910-10915); (2) installation of water services in areas containing contaminated soil or groundwater (see also chapter 15, Hazardous Materials, of this EIR); and (3) water recycling and conservation measures.<sup>3</sup>

Since the proposed redevelopment plan amendment would not increase water demand beyond what could already occur, and since future development would be subject to City plans, regulations, and requirements for environmental review, the project's impact and its contribution to cumulative impacts would be ***less than significant***.

**Mitigation.** No significant water service impact has been identified; no mitigation is required.

## 7.2 SEWER

### 7.2.1 Setting

Three districts provide wastewater service in the Merged Project Area: the Richmond Municipal Sewer District (RMSD), the West County Wastewater District (WCWD) (formerly called the West Contra Costa Sanitary District), and the Stege Sanitary District (SSD). The RMSD provides service to the central and southern Richmond and Point San Pablo areas, the WCWD serves northern Richmond (including the Rumrill Boulevard/Giant Highway and Hilltop areas), and the SSD serves the southeastern corner of the Merged Project Area.

(a) Richmond Municipal Sewer District. The Richmond Municipal Sewer District (RMSD) serves the area of central Richmond located generally south of Vernon Avenue. The RMSD operates a wastewater treatment plant at 601 Canal Boulevard in Point Richmond in the vicinity of the Santa Fe Channel. The plant has a capacity to handle 16 million gallons per day (mgd) for dry weather flows, 24 mgd for wet weather flows with primary and secondary treatment, and

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<sup>1</sup>City of Richmond General Plan and Zoning Ordinance Updates Program EIR, Draft, August 1993; page IV.D.32.

<sup>2</sup>Draft Environmental Impact Report for the Proposed Richmond Redevelopment Plan (10-B Nevin) Amendment Program, March 2005, page 7-4.

<sup>3</sup>Letter from William R. Kirkpatrick, Manager of Water Distribution Planning, EBMUD, to Jonelyn Whales, Senior Planner, City of Richmond Planning Department, re. "Notice of Preparation of a Draft Environmental Impact Report – Redevelopment Plan Amendment Project, Richmond," December 8, 2008.

40 mgd for wet weather flows with only primary treatment.<sup>1</sup> The RMSD expects to meet future needs beyond the 2010 buildout date for the General Plan.<sup>2</sup>

The west side of the San Pablo Peninsula is not connected to the RMSD system. Sewage generated in this area is locally collected and trucked to the RMSD treatment plant.<sup>3</sup>

(b) West County Wastewater District. The West County Wastewater District (WCWD) provides service to the Hilltop area and other parts of northern Richmond, plus East Richmond Heights and the El Sobrante Valley. Wastewater from these areas is directed to the West County Wastewater Treatment Plant in northern Richmond. In 2004, the plant's average dry weather flow was reported to be approximately 7.5 mgd, representing approximately 63 percent of the plant's reported design capacity of 12 mgd average dry weather flow.<sup>4</sup> A 2006 report noted similar flow and capacity (7.9-mgd wet weather flow, 12.5-mgd design capacity).<sup>5</sup> Any substantial new development in the WCWD service area is likely to require either replacement of existing, deteriorated lines or new parallel lines. New pumping stations may also be needed to take diverted flows to the treatment plant along the flat terrain of the northern Richmond area.<sup>6</sup>

(c) Stege Sanitary District. The Stege Sanitary District (SSD) serves the southernmost part of Richmond. The SSD provides sewage collection services but not sewage treatment; it only maintains and repairs sewer lines as needed. The SSD expects to be able to adequately meet future demand for its services. All wastewater is pumped to the East Bay Municipal Utility District (EBMUD) treatment plant in Oakland adjacent to the Bay Bridge. Wet weather overflows are directed to the EBMUD Wet Weather Treatment Plant located at Point Isabel in the southeastern corner of Richmond. This plant is only in operation during extreme winter storm events. Wastewater is treated and then deposited into the bay along the shoreline. The only current and future activity for EBMUD's Wet Weather Program is ongoing maintenance. EBMUD has a wet weather permit with the Regional Water Quality Control Board that sets the guidelines for the treated water. If these guidelines are amended to be stricter in the future, it may become necessary to modify/expand the current facilities.<sup>7</sup>

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<sup>1</sup>A-N West, Inc., Consulting Engineers, Richmond General Plan Update Issues & Opportunities Paper 2: Public Infrastructure Facilities, Draft, prepared for Moore Iacofano Goltsman, Inc., May 2006, page 2.

<sup>2</sup>Draft Environmental Impact Report for the Proposed Richmond Redevelopment Plan (10-B Nevin) Amendment Program, March 2005, page 7-4.

<sup>3</sup>Final Environmental Impact Statement/Environmental Impact Report for the Disposal and Reuse of Fleet and Industrial Supply Center Naval Fuel Depot Point Molate, February 2002, page 3-129.

<sup>4</sup>Letter from Paul D. Winnicki, PE, District Engineer, West County Wastewater District, to Steve Duran, Executive Director, Richmond Redevelopment Agency, December 21, 2004, page 1.

<sup>5</sup>A-N West, Inc., page 6.

<sup>6</sup>Draft Environmental Impact Report for the Proposed Richmond Redevelopment Plan (10-B Nevin) Amendment Program, March 2005, page 7-5.

<sup>7</sup>A-N West, Inc., pages 6-7.

EBMUD has previously indicated that it expects its main wastewater treatment plant to have adequate dry weather capacity to treat future wastewater flows from the Merged Project Area vicinity, provided the wastewater meets EBMUD Environmental Services Division standards. However, since the SSD has set a maximum allowable peak wastewater flow from each subbasin within the SSD service area, developers of individual projects must confirm with the SSD that the subbasin flow allocation has available capacity for their projects and that the capacity has not been allocated to other developments.

The age of the sanitary sewer collection system (main lines and laterals) serving the older developed portions of the city, including portions of the Merged Project Area, is a major concern. Groundwater infiltration/inflow into damaged existing laterals can substantially increase the volume of wastewater flow to the wastewater treatment system. The City is currently requiring that all laterals be inspected and repaired at the time a property sells. In addition, new discretionary individual projects within the Merged Project Area must address replacement or rehabilitation of the existing sanitary sewer collection system to prevent an increase in infiltration/inflow (I/I).<sup>1</sup>

### **7.2.2 Pertinent Plans and Policies**

(a) City of Richmond General Plan. The City of Richmond General Plan contains the following policies and implementation programs that, in governing all project-related redevelopment activities and project-related discretionary development, would serve to mitigate associated adverse sewer service impacts:

- *Comply with and maintain compliance with performance standards for...sanitary facilities...established in Richmond's Growth Management Element, and apply the standards to Richmond's development review process. (Policy GM-B.1)*

[Note: For the Richmond Municipal Sewer District, performance standards include Class 4 conventional activated sludge and secondary treatment facility, design flow of 15 million gallons per day, and self-monitoring for full National Pollutant Discharge Elimination System (NPDES) permit compliance, with active pretreatment programs. For the West Contra Costa Sanitary District (West County Wastewater District), performance standards include Class 4 conventional activated sludge and secondary treatment facility, design flow of 9.5 million gallons per day, and self-monitoring for full NPDES permit compliance, with active pretreatment program. No performance standards are set for the Stege Sanitary District, which performs a collection function only.]

- *Ensure that the new development pays its share of the costs associated with the provision of facilities for...sanitary facilities...by attaching project specific mitigation requirements as conditions of approval. (Policy GM-B.2)*
- *Continue to operate and maintain the Municipal Sewer District at high levels of efficiency, and upgrade the City's wastewater system to provide sufficient capacity and water pollution control facilities to meet current and future projected needs, including backup capacity to cover periods of maintenance and heavy storm water runoff. (Policy CF-H.4)*

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<sup>1</sup>Letter from William R. Kirkpatrick, Manager of Water Distribution Planning, East Bay Municipal Utility District, to Janet Harbin, Principal Planner, City of Richmond Planning Department, re. "Notice of Preparation of a Draft Environmental Impact Report--Enterprise Zone Preliminary Application, Richmond," October 4, 2006.

- *Coordinate closely the planning, operation, and upgrading of the Richmond Municipal Sewer District facilities with the West Contra Costa and Stege Sanitary Districts and with East Bay Municipal Utility District. (Policy CF-H.5)*
- *City will implement the Growth Management Element and Program so as to ensure that any new development shall be approved only if the infrastructure performance standards contained in the Growth Management Element are met. (Implementation Program CF-H.1)*
- *City will continue to conduct environmental impact assessments, and to require EIRs where necessary, for all substantial new developments proposed in Richmond. The City will notify, and include in the environmental assessment process, applicable local and regional agencies providing public infrastructure facilities. (Implementation Program CF-H.2)*
- *City will implement wastewater capital improvement projects as outlined in current City CIP. Projects include storm/sanitary sewer rehabilitation program; storm water management program; wastewater pollution control plant program master planning; 5-year equipment replacement program; replace maintenance equipment; wastewater pollution control plant landscaping improvements; contribution for frontage for Cutting/ Canal Assessment District; and regulatory consulting services. (Implementation Program CF-H.4)*
- *City will require developers to submit plans showing how their process would tie into a sanitary service system. (Implementation Program CF-H.13)*
- *Greatly expand reclamation of waste water. Such water should be utilized by all appropriate users, in particular by industry (e.g., Chevron Refinery and Richmond Rod and Gun Club). (Policy OSC-J.1)*
- *Improve the City's sewage collection system so as to minimize the impact of stormwater on the sewage treatment plant. (Policy OSC-M.1)*
- *City will encourage responsible agencies and industry to expand waste water reclamation/utilization facilities. (Implementation Program OSC-J.1)*
- *City will through the Development Review Organization require as a condition of approval that industrial projects incorporate a waste water reclamation plan. (Implementation Program OSC-J.2)*

As noted above, the *Growth Management Element* of the Richmond General Plan includes performance standards for provision of sanitary sewer service that address treatment system type, capacity, and monitoring. In addition, the *Growth Management Element* performance standards require verification by the Richmond Municipal Sewer District (or other sanitary district as applicable) that adequate collection and treatment meeting Regional Water Quality Control Board standards can be provided. The *Growth Management Element* states that all new development shall be approved only if these standards (which apply only to capital facilities and exclude personnel requirements and operating procedures) are met.

It is not expected that the policies listed above will change substantially with the anticipated update of the General Plan now underway.

(b) Point Molate Master Utility Plan/Capital Improvement Plan. The City's 1999 Master Utility Plan/Capital Improvement Plan for the Point Molate site, located south of the Point San Pablo portion of the Merged Project Area, calls for systematically rehabilitating and replacing existing substandard or poor condition sewer pipes over time, and adding significant new legs for new developments on the site as they occur. The plan also calls for installing a 24,000-gallon-per-day package treatment plant to meet short-term needs, and then replacing this plant with a larger facility to accommodate planned growth on the Point Molate site.<sup>1</sup> These provisions may also be pertinent to the future provision of sewer service to development in the Point San Pablo portion of the project area, if and when development in that area is proposed.

### **7.2.3 Significance Criteria**

Based on the CEQA Guidelines,<sup>2</sup> the proposed redevelopment plan amendment program and program-facilitated growth would result in a significant environmental impact related to sewer service if they would:

- (a) exceed the wastewater treatment requirements of the applicable Regional Water Quality Control Board;
- (b) require or result in the construction of wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;  
or
- (c) result in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

### **7.2.4 Impacts and Mitigation Measures**

**Impacts on Wastewater Service.** The proposed redevelopment plan amendment would facilitate development consistent with the General Plan that would in turn increase demand for wastewater treatment in Richmond.

The West County Wastewater District (WCWD) serves the northern part of the Merged Project Area. As established in the General Plan EIR, WCWD facilities are not adequate to support the level of new development allowed by the General Plan.<sup>3</sup> In addition, as indicated in the 2005 Richmond Redevelopment Plan Amendment (Nevin 10-B) Project Draft EIR,<sup>4</sup> the RMSD, which serves the central and southern parts of the Merged Project Area, has documented capacity problems in its collection and treatment plant systems. The SSD, as noted above, serves the southeastern corner of the Merged Project Area and is expected to have adequate capacity, but

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<sup>1</sup>Utility Study, Master Utility Plan, Capital Improvement Plan, Point Molate, California, February 1999 (revised May 1999), page vii.

<sup>2</sup>CEQA Guidelines, Appendix G, Items XVI(a), XVI(b), and XVI(e).

<sup>3</sup>City of Richmond General Plan and Zoning Ordinance Updates Program EIR, Draft, August 1993, page IV.D.28.

<sup>4</sup>Draft Environmental Impact Report for the Proposed Richmond Redevelopment Plan (10-B Nevin) Amendment Program, March 2005, page 7-3.

available capacity and plans for replacement or rehabilitation of sewer lines need to be confirmed when discretionary development is proposed.

Since development within the Merged Project Area would be undertaken in accordance with General Plan land use designations and zoning regulations (as explained in section 1.2.4, Future Development Assumptions, in chapter 1, Introduction, of this EIR), or consistent with other discretionary actions subject to environmental review, wastewater demand in the Merged Project Area would be consistent with City plans. Development under the proposed redevelopment plan amendment would incorporate Richmond General Plan policies and programs, and related adopted implementing regulations to mitigate potential impacts on wastewater treatment.<sup>1</sup> Specifically, applicable provisions cited in the General Plan EIR include General Plan Policies GM-B.1, GM-B.2, CF-H.4, and CF-H.5; and Implementation Programs CF-H.1, CF-H.2, CF-H.4, and CF-H.13 (see section 7.2.2, Pertinent Plans and Policies, above). These provisions tie new development approvals to the provision of adequate sanitary services, so that development to be served by the RMSD, WCWD, and SSD could not be approved unless adequate facilities are either present or are proposed as a condition of approval.<sup>2</sup> The provisions require compliance with performance standards established in Richmond's General Plan *Growth Management Element*, application of the standards to the City's development review process, coordination of development review with applicable sanitary districts, and the requirement that new development pay its share of the costs associated with provision of wastewater facilities through project-specific mitigations required as conditions of approval. These provisions would be applied to individual development projects as they are proposed and approved and would allow consideration of project-specific issues, including concerns raised by EBMUD regarding subbasin flow capacities and the need for sewer line replacement or rehabilitation to prevent in increase in infiltration/inflow (I/I).<sup>3</sup>

The proposed redevelopment plan amendment would not increase wastewater service demand beyond what could already occur, and future development would be subject to City plans, regulations, and requirements for environmental review. In addition, the redevelopment plan amendment program proposes to provide public improvements, including sanitary sewer facilities, necessary to support other redevelopment plan objectives (see further discussion in chapter 3, Project Description, of this EIR). The project's impact and its contribution to cumulative impacts would therefore be ***less than significant***.

**Mitigation.** No significant wastewater treatment impact has been identified; no mitigation is required

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<sup>1</sup>City of Richmond General Plan and Zoning Ordinance Updates Program EIR, Draft, August 1993, page IV.D.29.

<sup>2</sup>Draft Environmental Impact Report for the Proposed Richmond Redevelopment Plan (10-B Nevin) Amendment Program, March 2005, page 7-8.

<sup>3</sup>Letter from William R. Kirkpatrick, Manager of Water Distribution Planning, East Bay Municipal Utility District, to Janet Harbin, Principal Planner, City of Richmond Planning Department, re. "Notice of Preparation of a Draft Environmental Impact Report--Enterprise Zone Preliminary Application, Richmond," October 4, 2006.

## 7.3 POLICE SERVICES

### 7.3.1 Setting

The Richmond Police Department (RPD) provides police services to all of the incorporated areas of Richmond, including the Merged Project Area. This RPD service is supplemented by the California Highway Patrol, which provides services on Interstates 580 and 80, and by the United States Coast Guard, which patrols the shoreline.

The RPD recently had authorization for 203 sworn officers, but operated with a staff of about 170 sworn officers.<sup>1</sup> The RPD has five stations, one of which is located downtown and uses a computerized monitoring system to allocate resources among the RPD's five service districts and ten beats. The RPD also maintains substations in the Hilltop Mall area and elsewhere in the city.

The RPD has a response time goal of three to five minutes or less for life-threatening and critical emergency calls, consistent with the City's General Plan *Growth Management Element* Performance Standard Police (1)<sup>2</sup> (see section 7.3.2, Pertinent Plans and Policies, below). The RPD usually responds to non-emergency calls in 30 to 60 minutes, consistent with *Growth Management Element* Performance Standard Police (4).<sup>3</sup>

The City has adopted a Public Facility Impact Fee to mitigate impacts related to incremental demand for police services created by new development.

### 7.3.2 Pertinent Plans and Policies

The City of Richmond General Plan contains the following policies and implementation programs that, in governing all project-related redevelopment activities and project-related discretionary development, would serve to mitigate associated adverse police service impacts:

- *Comply with and maintain compliance with performance standards for...police... established in Richmond's Growth Management Element, and apply the standards to Richmond's development review process. (Policy GM-B.1)*

[Note: Performance standards include three- to five-minute response times for life-threatening and critical emergency calls, 15- to 20-minute response times for non-critical emergency calls, 30- to 60-minute response times for non-emergency calls, and 60-minute-plus response times for other calls.]

- *Ensure that the new development pays its share of the costs associated with the provision of facilities for...police ...by attaching project specific mitigation requirements as conditions of approval. (Policy GM-B.2)*

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<sup>1</sup>Ford Assembly Building Reuse Project, Mitigated Negative Declaration, May 2004, page 75; and Moore Iacofano Goltsman, Inc., Richmond General Plan Update Issues & Opportunities Paper 5: Community Facilities, Draft, May 2006, page 6.

<sup>2</sup>City of Richmond General Plan, Volume 1, *Growth Management Element*, page GM-11.

<sup>3</sup>Ibid.; page GM-11.

- *Provide an adequate level of police facilities and equipment to protect the community.* (Policy CF-F.1)
- *City will continue to implement and periodically update the Public Facilities Fees which require new development to contribute funds for public facilities including police capital equipment and facilities.* (Implementation Program CF-F.1)
- *City will continue to obtain needed police and public safety capital equipment as identified and updated annually in the City Capital Improvement Program.* (Implementation Program CF-F.2)

As noted above, the *Growth Management Element* of the City's General Plan includes performance standards for police service that address response times for various categories of service calls. The *Growth Management Element* states that new development may be approved only if these standards (which apply only to capital facilities and exclude personnel requirements and operating materials) are met.

It is not expected that the policies listed above will change substantially with the anticipated update of the General Plan now underway.

### **7.3.3 Significance Criteria**

Based on the CEQA Guidelines,<sup>1</sup> the proposed redevelopment plan amendment program and program-facilitated growth would create a significant environmental impact related to police service if they would:

- (a) result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police services.

### **7.3.4 Impacts and Mitigation Measures**

**Impacts on Police Service.** The proposed redevelopment plan amendment would facilitate development consistent with the General Plan that would in turn increase demand for police service in Richmond. According to the General Plan EIR, the expected population increase due to General Plan buildout citywide would result in the need for approximately 43 additional police personnel in order to maintain service levels.<sup>2</sup>

Since development within the Merged Project Area would be undertaken in accordance with General Plan land use designations and zoning regulations (as explained in section 1.2.4, Future Development Assumptions, in chapter 1, Introduction, of this EIR), or consistent with other discretionary actions subject to environmental review, police service demand in the

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<sup>1</sup>CEQA Guidelines, Appendix G, Item XIII(a).

<sup>2</sup>City of Richmond General Plan and Zoning Ordinance Updates Program EIR, Draft, August 1993; page IV.D.10.

Merged Project Area would be consistent with City plans. Development under the proposed redevelopment plan amendment would incorporate policies, programs, and regulations to mitigate potential impacts on police services.<sup>1</sup> Specifically, applicable provisions cited in the General Plan EIR include General Plan Policies GM-B.1, GM-B.2 and CF-F.1; and Implementation Programs CF-F.1 and CF-F.2 (see section 7.3.2, Pertinent Plans and Policies, above). These provisions require the continued application of performance standards established in the *Growth Management Element* during the City's routine development review process for individual development applications.<sup>2</sup>

By facilitating redevelopment in currently blighted areas, the proposed redevelopment plan amendment could help to reduce crime as more people are brought into the area on a more constant basis, municipal services and infrastructure are upgraded to meet the added demands, and newer developments incorporate up-to-date security features and technology.

Since the proposed redevelopment plan amendment would not increase police service demand beyond what could already occur, and since future development would be subject to City plans, regulations, and requirements for environmental review, the project's impact and its contribution to cumulative impacts would be **less than significant**.

**Mitigation.** No significant police service impact has been identified; no mitigation is required.

## 7.4 FIRE PROTECTION AND EMERGENCY MEDICAL SERVICES

### 7.4.1 Setting

(a) Fire Protection Service. The Richmond Fire Department (RFD) provides firefighting and prevention services to the incorporated areas of the city, including the Merged Project Area. The RFD maintains seven fire stations and currently has a staff of 85 professional and civilian members.<sup>3</sup> In recent years, 18 firefighters were laid off and two fire inspector positions were eliminated due to the City's budget deficit.<sup>4</sup>

The RFD has automatic response agreements with the El Cerrito Fire Department and the Contra Costa County Fire District, which serves San Pablo, El Sobrante, El Cerrito, Kensington, and other adjoining unincorporated areas in western Contra Costa County.

The RFD can respond to approximately 90 percent of calls received within six minutes, in accordance with the City's General Plan *Growth Management Element* Performance Standard Fire (1) (see section 7.4.2, Pertinent Plans and Policies, below).<sup>5</sup> Due to distance, accessibility,

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<sup>1</sup>Ibid.; page IV.D.11.

<sup>2</sup>Draft Environmental Impact Report for the Proposed Richmond Redevelopment Plan (10-B Nevin) Amendment Program, March 2005, page 7-10.

<sup>3</sup>Moore Iacofano Goltsman, Inc., Richmond General Plan Update Issues & Opportunities Paper 5: Community Facilities, Draft, May 2006, page 7.

<sup>4</sup>Ford Assembly Building Reuse Project, Mitigated Negative Declaration, May 2004, pages 73-74.

<sup>5</sup>City of Richmond General Plan, Volume 1, *Growth Management Element*, page GM-11.

and intermittent traffic, response times to outlying parts of the city and Merged Project Area, such as shoreline areas, are often greater.<sup>1</sup>

The City has adopted a Public Facility Impact Fee to mitigate impacts related to incremental demand for fire protection created by new development.

(b) Emergency Medical Service. Richmond firefighters are also trained as emergency medical technicians (EMTs). Emergency medical response to the RFD service area is provided by American Medical Response (AMR) and coordinated with the RFD. The AMR ambulances maintain direct radio and telephone contact with and are dispatched by the RFD. All AMR ambulances are staffed with paramedics. AMR response times are generally similar to those of the RFD.<sup>2</sup>

(c) Multi-Hazard Functional Plan. The City has adopted a Multi-Hazard Functional Plan (MHFP) to coordinate City facilities and personnel with each other and with regional agencies in the event of major disaster or large-scale emergency. The Richmond Emergency Services Office coordinates the City's disaster preparedness planning and training with the cities of El Cerrito, San Pablo, Pinole, and Hercules.<sup>3</sup>

#### **7.4.2 Pertinent Plans and Policies**

The City of Richmond General Plan contains the following policies and implementation programs that, in governing all project-related redevelopment activities and project-related discretionary development, would serve to mitigate associated adverse fire protection and emergency medical service impacts:

- *Comply with and maintain compliance with performance standards for fire...established in Richmond's Growth Management Element, and apply the standards to Richmond's development review process. (Policy GM-B.1)*

[Note: Performance standards include six-minute response time by first engine company, 1,500 gallons of water per minute minimum, and access widths for turn-arounds and turning radius.]

- *Ensure that the new development pays its share of the costs associated with the provision of facilities for fire ...by attaching project specific mitigation requirements as conditions of approval. (Policy GM-B.2)*
- *Provide fire protection facilities and equipment necessary to protect the community. (Policy CF-E.1)*

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<sup>1</sup>Draft Environmental Impact Report for the Proposed Richmond Redevelopment Plan (10-B Nevin) Amendment Program, March 2005, page 7-11.

<sup>2</sup>Draft Environmental Impact Report for the Proposed Richmond Redevelopment Plan (10-B Nevin) Amendment Program, March 2005, page 7-11.

<sup>3</sup>City of Richmond General Plan and Zoning Ordinance Updates Program EIR, August 17, 1993, page IV.D.13.

- Implementation Programs CF-E.1 through CF-E.3: These programs include acquisition of fire prevention facilities and equipment identified in the City's Capital Improvement Program, implementation of the fees requiring new development to contribute funds for public facilities, and establishment of an agreement among West County fire agencies to jointly purchase and maintain specialized equipment.
- *City will continue to operate, equip, and upgrade the permanent City of Richmond Emergency Operations Center and an alternate center, to coordinate emergency and disaster operations.* (Implementation Program CF-G.1)
- *Ensure that adequate fire equipment, fire break, facilities, water (with sufficient pressure and emergency backup systems) and access are provided for a quick and efficient response in any area designated in the Zoning Ordinance as having a fire hazard.* (Policy SF-B.1)
- *Require a high level of fire resistance in all new and remodeled structures.* (Policy SF-B.5)
- *Require fire mitigation measures in new developments proposed within any areas outside the established response time zone.* (Policy SF-B.6)
- *Maintain a joint Disaster Preparedness Program which will allow the cities to pool their resources and better coordinate a comprehensive program of disaster preparedness.* (Policy SF-D.2)
- *Establish and maintain a permanent City of Richmond Emergency Operations Center, and an alternate center, to coordinate emergency and disaster operations.* (Policy SF-D.7)
- Implementation Programs SF-B.1 through SF-B.6: These programs include maintaining hiring and training standards for fire personnel, imposing requirements for building materials and clearance around structures, implementing appropriate recommendations of the 1982 Fire Prevention Study, continuing to request compliance with the Hazardous Waste Management Plan, informing residents about their responsibilities to provide fire breaks, and maintaining mutual aid agreements.
- Implementation Programs SF-D.1 through SF-D.4: These programs include providing access to disaster and emergency disaster contingency plans, implementing the Disaster Preparedness Program and Multi-Functional Hazard Plan, updating the radio communications network, and holding joint earthquake response exercises bi-annually.

As noted above, the *Growth Management Element* of the City's General Plan includes performance standards for fire services that address response time, fire flow requirements, and access widths. The *Growth Management Element* states that new development may be approved only if these standards (which apply only to capital facilities and exclude personnel requirements and operating procedures) are met.

It is not expected that the policies listed above will change substantially with the anticipated update of the General Plan now underway.

### **7.4.3 Significance Criteria**

Based on the CEQA Guidelines,<sup>1</sup> the proposed redevelopment plan amendment program and program-facilitated growth would result in a significant impact on the provision of fire protection and emergency medical services if they would:

- (a) result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection;
- (b) result in possible interference with an emergency response plan or emergency evacuation plan; or
- (c) result in inadequate emergency access.

### **7.4.4 Impacts and Mitigation Measures**

**Impacts on Fire Protection/Emergency Medical Services.** The proposed redevelopment plan amendment would facilitate development consistent with the General Plan that would in turn increase demand for fire protection and emergency medical services in Richmond. According to the General Plan EIR, the expected population increase due to General Plan buildout citywide would result in the need for approximately 29 additional firefighters in order to maintain service levels at 1.4 firefighters per 1,000 population.<sup>2</sup>

Since all discretionary development within the Merged Project Area would be undertaken in accordance with General Plan land use designations and zoning regulations (as explained in section 1.2.4, Future Development Assumptions, in chapter 1, Introduction, of this EIR), or consistent with other discretionary actions subject to environmental review, fire protection/emergency medical service demand in the Merged Project Area would be consistent with City plans. Development under the proposed redevelopment plan amendment would incorporate policies, programs, and regulations to mitigate potential impacts on fire protection/emergency medical services.<sup>3</sup> Specifically, applicable provisions cited in the General Plan EIR include General Plan Policies GM-B.1, GM-B.2, CF-E.1, SF-B.1, SF-B.5, SF-B.6, SF-D.2, and SF-D.7; and Implementation Programs CF-E.1 through CF-E.3, CF-G.1, SF-B.1 through SF-B.6, and SF-D.1 through SF-D.4 (see section 7.4.2, Pertinent Plans and Policies, above). These provisions require the continued application of performance standards established in the *Growth Management Element* during the City's routine development review process for individual development applications.<sup>4</sup>

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<sup>1</sup>CEQA Guidelines, Appendix G, Items XIII(a), VII(g), and XV(e).

<sup>2</sup>City of Richmond General Plan and Zoning Ordinance Updates Program EIR, Draft, August 1993; page IV.D.10.

<sup>3</sup>Ibid.; page IV.D.14.

<sup>4</sup>Richmond Redevelopment Areas Merger and Amendments Draft EIR, February 1999, pages 172-173.

Since the proposed redevelopment plan amendment would not increase fire protection/emergency medical service demand beyond what could already occur, and since future discretionary development would be subject to City plans, regulations, and requirements for environmental review, the project's impact and its contribution to cumulative impacts would be ***less than significant***.

**Mitigation.** No significant fire protection/emergency medical services impact has been identified; no mitigation is required.

## 7.5 SCHOOLS

### 7.5.1 Setting

The West Contra Costa County Unified School District (WCCCUSD) serves the cities of Richmond, El Cerrito, Hercules, Pinole, San Pablo, and unincorporated areas including El Sobrante, Kensington, North Richmond, and Tara Hills. The WCCCUSD currently operates 18 elementary schools, 2 middle schools, 2 adult schools, 4 continuation high schools, and 3 traditional high schools in the City of Richmond.<sup>1</sup>

WCCCUSD schools are funded via property tax revenue, state general aid and school apportionments, and federal subventions. The WCCCUSD collects these revenues in a Developer Fee Fund that can be used for constructing new schools or purchasing or leasing relocatable classrooms.<sup>2</sup> The State-mandated school impact fee levied on new development varies from school district to school district, depending on the current documented capacity and enrollment. Within the WCCCUSD, the current State-approved (Level II) school impact fee is \$3.88 per square foot of all living space, excluding garages and outdoor decks.<sup>3</sup>

### 7.5.2 Pertinent Plans and Policies

The City of Richmond General Plan contains the following policies and implementation programs that, in governing all project-related redevelopment activities and project-related discretionary development, would serve to mitigate associated adverse school service impacts:

- *In the case of new residential developments having significant potential impact on school district facilities, City will take steps to ensure that developers in each case coordinate and work closely with the School District on mitigating the project impacts. (Implementation Program CF-J.3)*
- *City will continue to refer applicants of new buildings developments to the Richmond Unified School District in order to pay the District's required development impact fees prior to Building Permit issuance for individual projects, as needed, to maintain school performance standards. (Implementation Program CF-J.4)*

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<sup>1</sup>Moore Iacofano Goltsman, Inc., Richmond General Plan Update Issues & Opportunities Paper 4: Education, Draft, May 2006, page 4.

<sup>2</sup>Richmond Redevelopment Areas Merger and Amendments Draft EIR, February 1999, page 174.

<sup>3</sup>Ford Assembly Building Reuse Project, Mitigated Negative Declaration, May 2004, page 76.

It is not expected that the policies listed above will change substantially with the anticipated update of the General Plan now underway.

### **7.5.3 Significance Criteria**

Based on the CEQA Guidelines,<sup>1</sup> growth facilitated by the proposed redevelopment program may be considered in this EIR to have a potentially significant impact on school services if it would:

- (a) result in substantial adverse physical impacts associated with the need for or provision of new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable performance objectives.

### **7.5.4 Impacts and Mitigation Measures**

**Impacts on Public School Facilities.** The proposed project would facilitate development consistent with the General Plan that would contribute to an increase in the number of students served by the West Contra Costa County Unified School District (WCCCUSD). This student increase may exceed the capacity of Richmond schools and/or the WCCCUSD's financial resources for providing new or expanded facilities.

According to the General Plan EIR, the expected population increase due to General Plan buildout citywide would generate approximately an additional 3,230 students attending WCCCUSD schools.<sup>2</sup> The General Plan EIR estimated that, in order to maintain the school employee-to-student ratio, approximately 215 additional employees would be required at General Plan buildout. The growth in student enrollment would also result in increased school operating costs. The General Plan EIR identified a significant unavoidable impact on schools given the buildout population forecasts and school district financial difficulties. Development that may occur over time in the Merged Project Area would contribute to the citywide demand for school services.

Since development within the Merged Project Area would be undertaken in accordance with General Plan land use designations and zoning regulations, or consistent with other discretionary actions subject to environmental review, school service demand in the Merged Project Area would be consistent with City plans. Development under the proposed redevelopment plan amendment would incorporate policies, programs, and regulations to mitigate potential impacts on school services.<sup>3</sup> Specifically, applicable provisions cited in the General Plan EIR include General Plan Policy CF-J.2 and Implementation Program CF-J.4 (see section 7.5.2, Pertinent Plans and Policies, above). These provisions outline the ways in which the City will work with the WCCCUSD to support the school system. In addition, new development would be required to pay a school facilities development fee prior to building permit issuance. These fees are used to maintain school performance standards. Also,

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<sup>1</sup>CEQA Guidelines, Appendix G, Item XIII(a).

<sup>2</sup>City of Richmond General Plan and Zoning Ordinance Updates Program EIR, Draft, August 1993; page IV.D.14.

<sup>3</sup>City of Richmond General Plan and Zoning Ordinance Updates Program EIR, Draft, August 1993; pages IV.D.18 through IV.D.19.

pursuant to Health and Safety Code section 33607.5, the Redevelopment Agency is required to make pass-through payments of tax increment revenue to the school district. The Agency is not required to provide mitigation for school impacts beyond these payments, however.

These provisions would help to reduce school impacts resulting from development facilitated by the proposed redevelopment plan amendment. Nevertheless, development that could occur within the Merged Project Area as a result of the proposed amendment would contribute to the overall level of development associated with citywide buildout of General Plan land uses. The General Plan EIR concluded that, despite General Plan policies and impact fees, this level of development could cause an increase in school enrollments beyond existing capacity, resulting in a need for funding to create additional capacity.<sup>1</sup>

**Mitigation:** Future developers within the Merged Project Area will be required to pay the state-authorized school impact fees to the extent approved by each school district. Pursuant to section 65995 of the California Government Code (Senate Bill 50, chaptered August 27, 1998), the payment of statutory fees "*...is deemed to be full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization....*" Therefore, subsequent to payment of statutory fees, the project's impact and its contribution to cumulative impacts on schools would be considered **less than significant**.

In addition, the Redevelopment Agency will make required pass-through payments of tax increment revenue to the WCCCUSD.

## 7.6 PARKS AND RECREATION

### 7.6.1 Setting

(a) Existing City Parks and Recreational Facilities. The City maintains 55 parks and recreational facilities within the city covering 292.5 acres, providing approximately 2.8 acres per 1,000 residents.<sup>2</sup> The majority of City parks are classified within one of three service levels: citywide parks, district centers providing community facilities and public meeting space, and neighborhood parks serving residents within a one-half-mile radius. In addition, the City operates two aquatic facilities (although only one is currently open) and two senior centers.<sup>3</sup> Parks and recreational facilities are located throughout the Merged Project Area.

(b) Existing Regional Parks. The East Bay Regional Park District (EBRPD) maintains three regional shorelines in Richmond: Miller/Knox Regional Shoreline (which adjoins the southern part of the Merged Project Area), Point Isabel Regional Shoreline (portions of which are located within or adjoin the southern part of the Merged Project Area), and Point Pinole Regional Shoreline (which adjoins the northern part of the project area). The Point Isabel Regional

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<sup>1</sup>Draft Environmental Impact Report for the Proposed Richmond Redevelopment Plan (10-B Nevin) Amendment Program, March 2005, page 7-17.

<sup>2</sup>Sharon West, Assistant to the Parks Superintendent, personal communication with Craig Murray, Development Project Manager II, Richmond Redevelopment Agency, May 17, 2005.

<sup>3</sup>Draft Environmental Impact Report for the Proposed Richmond Redevelopment Plan (10-B Nevin) Amendment Program, March 2005, page 7-17.

Shoreline adjoins the Eastshore State Park. In addition, the EBRPD has potential plans to acquire wetlands along the northern Richmond shoreline. Other regional parks in Richmond include Brooks Island Regional Preserve, Kennedy Grove, and Wildcat Canyon (including Alvarado Park). In addition, 992 acres of watershed land surrounding San Pablo Reservoir are owned by the East Bay Municipal Utility District and are available for water-related recreation.<sup>1</sup>

(c) Existing and Planned Trails. The ABAG San Francisco Bay Trail Plan and associated existing and planned Bay Trail provisions in the Merged Project Area vicinity are described in section 4.2.2(a) of this EIR. Existing local segments of the San Francisco Bay Trail include (1) segments connecting the Brickyard Cove, Marina Bay, and Point Isabel areas in the southern part of the Merged Project Area and vicinity; (2) a segment extending along Richmond Parkway (Garrard Boulevard); (3) a segment located south of the West County Landfill outside the Merged Project Area; and (4) segments extending along Atlas Road and around Point Pinole north of the Merged Project Area.<sup>2</sup> Additional portions of the San Francisco Bay Trail are in the planning stages, as described in section 4.2.2(a), "ABAG's San Francisco Bay Trail Plan," and in section 7.6.2, "Pertinent Plans and Policies," below.

(d) City Park Standard. The City has adopted a City park provision standard of three acres per 1,000 residents. This standard applies citywide, and includes existing and planned City park sites and recreational trails, but does not include recreation center building space, regional park acreage, or other jurisdictions' facilities. School district and other jurisdictions' facilities are included only if covered by a shared-use agreement, in which case 50 percent of a facility's acreage is applied toward meeting the City standard.<sup>3</sup>

The City currently has a total of approximately 292.5 acres of parkland. As discussed in chapter 5, Population, Housing, and Employment, of this EIR, the current population is approximately 102,700 in the city limits (with an additional 17,300 outside the city limits but within the sphere of influence). Based on the City's park standard, the City should therefore currently have about 308 acres of parkland. The City would therefore need 15.5 more acres of parkland to meet its current parkland standard of three acres per 1,000 residents.

(e) City Recreational Facility Standard. The City has adopted a standard for recreational facilities of one square foot per person, which translates to 102,700 square feet of recreational facilities based on the current population of 102,700. The City presently has 12 recreation centers totaling about 80,000 square feet. Thus, the City is more than 20 percent below its standard for provision of recreational facilities.

(f) Park Land Dedication and In-Lieu Fees. State law (the Quimby Act) authorizes local governments to require the dedication of park land or impose a fee (in lieu of land dedication) to offset the additional demand for parks and recreational facilities generated by new development. State law limits dedication requirements to an amount that does not exceed three acres of park

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<sup>1</sup>Draft Environmental Impact Report for the Proposed Richmond Redevelopment Plan (10-B Nevin) Amendment Program, March 2005, page 7-18.

<sup>2</sup>Association of Bay Area Governments, "San Francisco Bay Trail" map, Carquinez Strait – Vallejo to Richmond section, [http://baytrail.abag.ca.gov/maps/Carquinez\\_Strait.pdf](http://baytrail.abag.ca.gov/maps/Carquinez_Strait.pdf), viewed March 31, 2009.

<sup>3</sup>Draft Environmental Impact Report for the Proposed Richmond Redevelopment Plan (10-B Nevin) Amendment Program, March 2005, page 7-18.

area per 1,000 residents. The City has established required dedication and development fees through its Municipal Code (Section 15.08.400 of the City of Richmond Municipal Code).

### **7.6.2 Pertinent Plans and Policies**

(a) City of Richmond General Plan. In the Point San Pablo portion of the Merged Project Area, the City of Richmond General Plan designates the Terminal 4 subarea as “Port/Marine Terminal/Ship Repair,” “Heavy Industry,” and “Recreation Lands” and designates the yacht harbor subarea as “Water Related Commerce and Commercial Recreation.” The area south of the yacht harbor is designated “Preservation/Resource Areas.” The General Plan also designates a variety of park and recreational facilities within or in the vicinity of the remainder of the Merged Project Area.

(1) *Pertinent Policies and Implementation Programs*. In addition, the Richmond General Plan contains the following policies and implementation programs that, in governing all project-related redevelopment activities and project-related discretionary development, would serve to mitigate associated adverse parks and recreation service impacts:

- *Comply with and maintain compliance with performance standards for ...parks... established in Richmond’s Growth Management Element, and apply the standards to Richmond’s development review process. (Policy GM-B.1)*

[Note: Performance standards include three acres of City parks per 1,000 population, one square foot of recreational facility building space per person, and facility location standards.]

- *Ensure that the new development pays its share of the costs associated with the provision of facilities for...parks ...by attaching project specific mitigation requirements as conditions of approval. (Policy GM-B.2)*
- *Identify and reserve sufficient land to satisfy the park and recreation needs of Richmond residents. (Policy CF-A.1)*
- *Acquire lands for neighborhood, district and citywide park needs through dedication, direct acquisition, or donation. (Policy CF-A.2)*
- *Protect public recreation and park areas and facilities against encroachment or acquisition for other public or private uses. (Policy CF-A.4)*
- *Negotiate and undertake the shared use of recreation and park facilities owned and operated by the School District, the Regional Park District, and other jurisdictions wherever feasible and appropriate, as a cost-effective option providing benefits to both city residents, the City, and to other agencies. (Policy CF-A.6)*
- *Ensure that sufficient land is available to meet the existing and future needs for regional shoreline recreation. (Policy CF-A.7)*
- *Promote the development of regional and local urban trails and collaborate with regional, County, and other local public agencies with nonprofit and private groups to develop urban trail systems. (Policy CF-A.8)*

- *Provide facilities accommodating a variety of recreation activities for all the major age groups and user groups in the community, at the neighborhood, district, citywide and regional levels. (Policy CF-B.2)*
- *Provide community centers at centrally located recreation areas, each serving the recreational and cultural needs of a district or subarea of the City consisting of several neighborhoods. (Policy CF-B.3)*
- *Provide recreation and park facilities near employment centers that can be used by workers, that encourage the growth of employment, and that increase the desirability of the City as a place to live and work. (Policy CF-B.5)*
- *Require projects adjacent to parks or recreational corridors to minimize impacts on the recreational values of those facilities. (Policy CF-B.7)*
- *Maintain a safe and healthy environment and an adequate level of facilities in all City owned or operated park and recreation facilities. (Policy CF-C.4)*
- *Require residential developers to contribute to the development of public park and recreational land and facilities. (Policy CF-D.1)*
- *Encourage developers to provide dedicated public parkland and facilities instead of in lieu fees. (Policy CF-D.2)*
- *Encourage development of private and commercial recreational facilities to supplement public facilities. (Policy CF-D.4)*
- Implementation Programs CF-A.1 through CF-A.6: These programs include requirements relating to the provision of park facilities by developers; exploration of opportunities for adding infill park acreage, and shared use of facilities with the School District; coordination with the EBRPD; a planning study of the Central Richmond Greenway; inclusion of a parks analysis in the review of development proposals; and the preparation of an annual report on park and recreation needs and planning.
- Implementation Programs CF-B.1 through CF-B.6: These programs include implementation of ongoing community service recreation programs; investigation of funding sources for a North Richmond park; inclusion of specified projects in the City's Capital Improvement Program, including phased development of the City-owned Hilltop Lake site to meet park needs as buildout occurs at Hilltop; application for funding of the Public Access Corridor proposed in the North Richmond Shoreline Specific Plan; collaboration with EBRPD on the development of interpretive areas; and use of development standards to minimize land use conflicts in the North Richmond Shoreline area.
- Implementation Programs CF-C.1 through CF-C.4: These programs include preparation of a Park Master Plan; inclusion of specified park and recreation projects in the City's Capital Improvement Program, including renovation of Nicholl Park; provision of services and hours consistent with needs of the areas served; and collaboration with the North Richmond COMET Planning Group.
- Implementation Programs CF-D.1 and CF-D.2: These programs include implementation of the City's Capital Improvement Program and continual identification of park and recreation

facility needs, and implementation of the requirements for developer contributions for parks and recreation facilities.

- Policies OSC-O.1 through OSC-8: These policies encourage the provision or preservation of public access to parks and open space areas along the Richmond shoreline.
- *Establish right-of-way for the Bay Trail...in cooperation with the EBRPD and the respective trail councils. (Policy OSC-S.2)*
- *Protect hiking and biking paths from conflicts with motorized vehicles to the greatest extent possible. (Policy OSC-S.4)*
- *Provide public access where a local or regional trail is planned or located. (Policy OSC-S.5)*
- *Develop a network of trails linking residential areas with parks, schools, open space, shopping, and various public facilities. (Policy OSC-S.7)*
- *City will require adequate provisions for car and bicycle parking at shoreline public access points... (Implementation Program OSC-O.2)*
- *City will encourage the development and designation of bicycle, hiking and horse trails both leading to shoreline access points and extending along the shoreline where feasible. (Implementation Program OSC-O.3)*
- *City will, through the Zoning Ordinance and Development Review Organization, control the siting and design of new development to ensure a reasonable degree of free permanently guaranteed access to the shoreline, with adequate links to inland areas for public use. Such control may involve requiring the dedication of fee title or easements where appropriate at no public cost. (Implementation Program OSC-O.4)*
- *City will require property owners, as part of any project approval process, to provide maximum feasible public access to the shoreline through developed areas, around them, or between them to reach points along the shoreline. Public paths may stretch along the shoreline where feasible, winding around developed areas or structures if necessary. (Implementation Program OSC-O.6)*
- *City will require all new commercial, industrial, and residential developments to provide public access where a local or regional trail (e.g., Bay Trail and Bay Area Ridge Trail) is planned or located. (Implementation Program OSC-S.1)*

It is not expected that the policies listed above will change substantially with the anticipated update of the General Plan now underway.

(2) *Area-Specific Guidelines.* The General Plan also contains the following relevant “area-specific guidelines” pertinent to consideration of the impacts of the project on parks and recreation services:

### ***Shoreline Areas:***

- *Promote circulation facilities in the shoreline areas that will assist inland residents in taking advantage of the shoreline. Stress that the design of these facilities should not block access to the waterfront. (Circulation Element, Shoreline General Guideline 2)*
- *Encourage development of a system of hike/bike trails throughout the shoreline area as shown on Circulation Plan Map, 2. (Circulation Element, Shoreline General Guideline 5)*
- *Ensure that adequate bicycle and pedestrian pathways and crossings, linked to shoreline trails and mass transit, are built in connection with highway improvements. (Circulation Element, Shoreline General Guideline 6)*

### West Shoreline:

- *Establish a public access trail plan line, including Class 1 separated pedestrian and bicycling facilities, from Point Richmond around the Potrero Peninsula utilizing the Santa Fe railroad tunnel and right-of-way to Ferry Point, through Brickyard Cove and Seacliff Estates to Canal Boulevard and along Canal Boulevard...(Open Space and Conservation Element, West Shoreline Guideline 5)*
- *Establish a public access trail from Point Richmond to Point San Pablo including a pedestrian trail from Keller Beach to the Richmond-San Rafael Bridge and a bicycling trail from I-580 along Western Drive to the tip of Point San Pablo...(Open Space and Conservation Element, West Shoreline Guideline 6)*
- *An overlook park is designated for Point San Pablo and should be improved with a turnout off Western Drive. (Open Space and Conservation Element, West Shoreline Guideline 9)*

### North Shoreline:

- *Establish a public access trail, including pedestrian and bicycling facilities, from Canal and Cutting Boulevards north to Point Pinole Regional Park. (Open Space and Conservation Element, North Shoreline Guideline 3)*
- *Promote the establishment of shoreline sites or piers for public fishing on the northwest shore of Pinole Point and near the mouth of Wildcat Creek. (Community Facilities Element, North Shoreline Guideline 1)*
- *Establish a public access trail, including pedestrian and bicycling facilities, from Canal and Cutting Boulevards north to Point Pinole Regional Park. (Open Space and Conservation Element, North Shoreline Guideline 3)*

### South Shoreline:

#### *Point Isabel:*

- *Retain the existing Santa Fe (Catellus) landfill of approximately 18 acres immediately north of Point Isabel as a preservation area with limited access for open space recreation until the planning and environmental review process is completed, necessary permits are issued for*

development, and an adequate roadway connection is provided. (Community Facilities Element, Point Isabel Guideline 1)

- Promote the establishment of shoreline sites or piers for public fishing on the shoreline from Point Isabel to Marina Bay. (Community Facilities Element, Point Isabel Guideline 3)
- Retain existing park at Point Isabel Regional Shoreline. (Community Facilities Element, Point Isabel Guideline 4)
- Initiate and carry through coordinated planning to provide public access at points along Richmond's southern shoreline, from Point Isabel to and including the Marina Bay. (Open Space and Conservation Element, Point Isabel Guideline 2)
- Require, as a condition of development, provision of a pedestrian and bicycle link along the shoreline should any of the Point Isabel area shoreline be developed for other than park use. Devise public incentives and controls wherever possible for maintenance of private open space. Permit public access only to the edges of adjacent marshes along this trail. (Open Space and Conservation Element, Point Isabel Guideline 3)
- Establish a public access trail including Class 1 separated pedestrian and bicycling facilities as feasible, from the Albany City limit around Point Isabel to the Point Isabel Shoreline Park, then along the abandoned Santa Fe right-of-way to Meeker Slough and the new trail head at South 46th or 32nd Street. (Open Space and Conservation Element, Point Isabel Guideline 4)
- Protect the hike/bike path from physical and visual intrusion by all forms of motorized vehicles to the greatest extent possible. Encourage provision of motor vehicle access at Point Isabel, the UC Field Station, and Marina Bay, with use of the trail itself restricted to pedestrians and bicycles. (Open Space and Conservation Element, Point Isabel Guideline 8)

*Marina Bay:*

- *Continue to develop and provide for the following public open space areas in the Marina Bay basin area:*
  - a. *An esplanade which will encircle the perimeter of the basin. In addition to providing access to the marina, the esplanade will provide a pedestrian link between the land uses fronting the basin and be a pleasant environment for sitting, walking, bike riding, and viewing of the marina activities.*
  - b. *A "Marina Green" located along the northern shoreline of the basin. This area will essentially be a large lawn area which will accommodate a variety of leisure-time activities.*
  - c. *A beach extending along the Bayshore shoreline. It will provide an area for walking, sitting, picnicking, wildlife observation, and access to the Bay waters.*
  - d. *A park area located at the western end of the peninsula. This park will accommodate viewing and other water-oriented park uses. The park area may include parking facilities*

*to accommodate public use, and limited water-oriented commercial and commercial recreation facilities compatible with park use.*

- e. *A park area located along the western shoreline of the basin where the Ford Channel and Marina Bay meet. This park will also accommodate viewing and other water-oriented park uses. (Community Facilities Element, Marina Bay Guideline 1)*
- *Promote the establishment of shoreline sites or piers for public fishing on the shoreline from Point Isabel to Marina Bay. (Community Facilities Element, Marina Bay Guideline 2)*
- *Develop a system of pathways for bicyclists and pedestrians which will connect all non-industrial development in the Marina Bay area and will connect the area to regional city-wide hike/bike trails. (Community Facilities Element, Marina Bay Guideline 3)*
- *Provide, when feasible, a district recreation center facility to serve the Marina Bay area. (Community Facilities Element, Marina Bay Guideline 5)*
- *Initiate and carry through coordinated planning to provide public access at points along Richmond's southern shoreline, from Point Isabel to and including the Marina Bay. (Open Space and Conservation Element, Marina Bay Guideline 2)*
- *Encourage provision of motor vehicle access at Point Isabel and Marina Bay, with use of the trail itself restricted to pedestrians and bicycles. (Open Space and Conservation Element, Marina Bay Guideline 3)*
- *Establish a public access trail plan line, including pedestrian and bicycling facilities, along Marina Way to the southeast tip of the Ford Peninsula and along the channel to the proposed park at the southwest corner of the Peninsula. (Open Space and Conservation Element, Marina Bay Guideline 4)*
- *Provide access for pedestrians and bicyclists around the shore of the basin and the Bay. See also LU Element, Area Specific Guidelines. (Open Space and Conservation Element, Marina Bay Guideline 7)*

*Santa Fe Channel Area:*

- *Establish a park at the southwest corner of the Ford Peninsula. (Community Facilities Element, Santa Fe Channel Guideline 1) (See also Open Space and Conservation Element, Santa Fe Channel Guideline 2)*
- *Provide for the regional hike/bike trail as described in the Point Isabel to Miller-Knox Park Shoreline Corridor Feasibility Study. (Community Facilities Element, Santa Fe Channel Guideline 2)*
- *Establish a public access trail plan line, including pedestrian and bicycling facilities, along Marina Way to the southeast tip of the Ford Peninsula and along the channel to the proposed park at the southwest corner of the Peninsula. (Open Space and Conservation Element, Santa Fe Channel Guideline 1)*
- *Require waterfront developments, as part of any project approval process, to provide the maximum feasible public access to the shoreline consistent with the project, with adequate*

*links to inland areas.* (Open Space and Conservation Element, Santa Fe Channel Guideline 3)

**Iron Triangle:**

- Make significant improvement in major community facilities in accordance with the needs of the Iron Triangle and the standards of the Recreation and Parks Commission, the School Board and other pertinent agencies. (Community Facilities Element, Iron Triangle Guideline 1)

**Pullman:**

- *Develop recreational facilities commensurate with the size and nature of the population in the neighborhood.* (Community Facilities Element, Pullman Guideline 1)
- *Develop a tot lot west of 37th Street so as to serve the needs of the younger children.* (Community Facilities Element, Pullman Guideline 3)

**Hilltop:**

- *Provide, when feasible, a district recreation center facility to serve the Hilltop area.* (Community Facilities Element, Hilltop Guideline 2)

**Central/East Richmond:**

- *Provide, when feasible, a district recreation center facility to serve the Central/East Richmond area. Continue to consider conversion of the existing YWCA facility to a city operated district center serving Central/East Richmond, if it becomes available.* (Community Facilities Element, Central/East Richmond Guideline 1)

(b) East Bay Regional Park District Master Plan. The East Bay Regional Park District (EBRPD) Master Plan (1997) and Master Plan Map (2007) identify the North Richmond Wetlands and Point Molate as potential regional parklands. These areas are located immediately adjacent to the northern Richmond and Point San Pablo portions of the Merged Project Area, respectively. The EBRPD Master Plan also identifies the Richmond segments of the San Francisco Bay Trail as existing or potential regional trails.<sup>1</sup>

(c) ABAG's San Francisco Bay Trail Plan. As described in section 4.2.2(a) of this EIR, the following planned extensions of the Bay Trail are located within or near the Merged Project Area:<sup>2</sup>

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<sup>1</sup>East Bay Regional Park District, East Bay Regional Park District Master Plan 1997, adopted December 17, 1996, Table 3; and "2007 Master Plan Map," <http://www.ebparcs.org/files/2007MasterPlanMap.pdf>, viewed March 31, 2009.

<sup>2</sup>Association of Bay Area Governments, "San Francisco Bay Trail" map, Carquinez Strait – Vallejo to Richmond section, [http://baytrail.abag.ca.gov/maps/Carquinez\\_Strait.pdf](http://baytrail.abag.ca.gov/maps/Carquinez_Strait.pdf), viewed March 31, 2009.

- a "Richmond Greenway Trail" segment running east-west along Ohio Avenue through the central Richmond portion of the project area, linking the Del Norte BART station in El Cerrito to the east with the San Pablo Peninsula to the west;
- east-west Bay Trail segments in the vicinity of Seacliff Drive in southern Richmond portion of the project area, linking a planned north-south segment along Canal Boulevard to the existing Marina Bay segment of the trail;
- a Bay Trail segment along the city's west, San Pablo Peninsula shoreline from Point Richmond to the San Pablo Yacht Harbor, traversing the shoreline edges of the Terminal 4 and Point San Pablo Yacht Harbor portions of the project area;
- extensions of the Bay Trail near the West County Landfill, located outside the project area; and
- extensions of the Bay Trail north of Richmond Parkway in the vicinity of Goodrick Avenue, in the northern part of the project area.

Future redevelopment-facilitated development would be encouraged to accommodate compatible implementation of these ABAG-proposed trail extensions.

(d) San Pablo Peninsula Open Space Study. In 2005, the State Coastal Conservancy, East Bay Regional Park District, City of Richmond, Trails for Richmond Action Committee (TRAC), Muir Heritage Land Trust, and Chevron completed a study of parks and recreation potential on the San Pablo Peninsula (including the Point San Pablo portion of the project area). The study identifies the Terminal 4 portion of Point San Pablo for open space/recreational uses.<sup>1</sup>

### **7.6.3 Significance Criteria**

Based on the CEQA Guidelines,<sup>2</sup> the project and/or project-facilitated growth may be considered in this EIR to have a potentially significant impact on parks and recreation services if they would:

- (a) result in substantial adverse physical impacts associated with the need for or provision of new or physically altered parks and recreation facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives;
- (b) increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or
- (c) include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

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<sup>1</sup>Letter from Bruce Beyaert, TRAC Chair, to Jonelyn Whales, Senior Planner, City of Richmond Planning Department, November 30, 2008.

<sup>2</sup>CEQA Guidelines, Appendix G, Items XIII(d), XIV(a), and XIV(b).

#### **7.6.4 Impacts and Mitigation Measures**

**Impacts on Parks and Recreational Facilities.** The proposed redevelopment plan amendment would facilitate development consistent with the General Plan that would in turn increase demand for parks and recreational facilities in Richmond. This development would contribute to the citywide deficit of parkland and recreational facilities at General Plan buildout, as identified in the General Plan EIR.

As discussed in chapter 3, Project Description, the redevelopment plan amendment program includes provisions for developing and renovating parks, providing community access to the waterfront, and helping to complete the Bay Trail. The proposed redevelopment program may also have a beneficial impact by facilitating study and development of recreational uses in accordance with General Plan designations, e.g., in the Point San Pablo area.

Development within the Merged Project Area would be encouraged to comply with the guidelines of ABAG regarding the implementation and protection of the Bay Trail system. Future development would be encouraged to accommodate compatible implementation of the proposed trail extensions.

Since development within the Merged Project Area would be undertaken in accordance with General Plan land use designations and zoning regulations, or consistent with other discretionary actions subject to environmental review, park and recreational facilities demand in the Merged Project Area would be consistent with City plans. Development under the proposed redevelopment plan amendment would be required to comply with City policies, programs, and regulations to mitigate potential impacts on parks and recreational facilities as described in the General Plan EIR (page IV.D.5). Specifically, applicable provisions cited in the General Plan EIR include General Plan Policies GM-B.1, GM-B.2, CF-A.1 through CF-A.8, CF-B.1 through CF-B.7, CF-C.1 through CF-C.4, CF-D.1 through CF-D.4, OSC-O.1 through OSC-O.8, OSC-T.1, and OSC-T.3; and Implementation Programs CF-A.1 through CF-A.6, CF-B.2 through CF-B.7, CF-C.4, CF-D.1 and CF-D.2 (see section 7.6.2, Pertinent Plans and Policies, above). These provisions require new development to pay a fair share of costs associated with providing parks by attaching project-specific mitigation measures during the City's development review of individual projects.<sup>1</sup> The policies and implementation programs also designate and provide for development of trails and other recreational facilities, e.g., in the Point San Pablo area and surrounding vicinity.

The redevelopment plan amendment would not facilitate development beyond that allowed by the General Plan, and the City's numerous policies and programs addressing recreation and open space would be enforced at the time that new development is proposed. In addition, the redevelopment program would facilitate development and improvement of parks and trails. The project's impact and its contribution to cumulative impacts would therefore be ***less than significant***.

**Mitigation.** No significant impact on parks and recreational facilities has been identified; no mitigation is required.

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<sup>1</sup>Richmond Redevelopment Areas Merger and Amendments Draft EIR, February 1999, page 189.

## 7.7 SOLID WASTE AND RECYCLING

### 7.7.1 Setting

(a) Solid Waste Collection and Disposal. Richmond Sanitary Service provides solid waste removal and recycling service in Richmond, including the Merged Project Area. Solid waste from the city was formerly disposed of in the West Contra Costa Sanitary Landfill (WCCSL), located west of Richmond Parkway at the foot of Parr Boulevard. This landfill was recently closed after reaching capacity. A transfer station has been constructed at the landfill site, and solid waste is currently loaded onto long-haul trucks at the transfer station and transported to the Potrero Hills Landfill (PHL) in Solano County for disposal. This landfill is approximately 30 miles northeast of the city and has a permitted capacity of 21.5 million cubic yards (mcy), with an estimated remaining life of approximately two years. The operator is requesting approval of an expansion to an adjacent area that would provide an additional 61.6 mcy of capacity, providing approximately 35 years of additional landfill life. Future projections of growth in solid waste disposal at PHL account for future waste generated in the city; however, the proposed expansion of PHL has not yet been approved.<sup>1</sup>

(b) Recycling. The City is responsible for locally implementing the California Integrated Waste Management Act of 1989 (AB 939) as well as waste diversion programs that have been developed in response to this act. Additionally, the California Solid Waste Reuse and Recycling Access Act of 1991 mandated cities and counties to divert 50 percent of all solid waste by January 1, 2000, through source reduction, recycling, and composting activities. As part of its franchise agreement with the City, Richmond Sanitary Service has agreed to comply with the California Integrated Waste Management Act.

The City offers recycling services to encourage waste stream diversion. Curbside recycling is currently available to Richmond residents as part of their trash collection service. Curbside recycling includes collection of the following materials: steel, tin and aluminum cans, newsprint, cardboard, plastic containers, and glass bottles. The materials are taken to the Integrated Resource and Recovery Facility. Richmond Sanitary Service does not currently operate a weekly green waste collection service, but does provide construction waste pick-up from construction sites, provided the construction materials are separated from other types of waste products.<sup>2</sup>

### 7.7.2 Pertinent Plans and Policies

(a) City of Richmond General Plan. The City of Richmond General Plan contains the following policies and implementation programs that, in governing all project-related redevelopment activities and project-related discretionary development, would serve to mitigate associated adverse solid waste and recycling services impacts:

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<sup>1</sup>Draft Initial Study/Proposed Mitigated Negative Declaration: Twenty-Five Harbour Way Residential Project, prepared for the City of Richmond Planning Department by Grasseti Environmental Consulting, June 2007, page 63; and [http://www.solanocounty.com/depts/rm/documents/eir/potrero\\_hills\\_landfill.asp](http://www.solanocounty.com/depts/rm/documents/eir/potrero_hills_landfill.asp) viewed March 31, 2009.

<sup>2</sup>Richmond Redevelopment Areas Merger and Amendments Draft EIR, February 1999, page 181.

- *Implement the City's Source Reduction and Recycling Element, local waste "reduction at source," recycling, and resource recovery programs and practices. (Policy CF-H.9)*
- *City will implement its solid waste source reduction, recycling, and resource recovery program; implement the recycling awareness campaign; implement the City's adopted Recycled Product Procurement Policy; consider incentives to encourage backyard composting and source reduction; promote and support the Richmond Sanitary Service citywide curbside recycling service; and continue efforts to provide for the most economic future solid waste disposal. (Implementation Program CF-H.6)*

It is not expected that the policies listed above will change substantially with the anticipated update of the General Plan now underway.

(b) Joint Solid Waste Management Program (West Contra Costa Integrated Waste Management Authority). The problems associated with the management of solid waste extend beyond the City limits of Richmond. In recognition of this, the cities and unincorporated area of western Contra Costa County have joined together in the adoption of a joint solid waste management program administered by the West Contra Costa Integrated Waste Management Authority. The general goals of western Contra Costa County's solid waste management program, and therefore of Richmond, are the same as adopted by the California Integrated Waste Management Board. They are (in order of priority) to:

- Reduce the amount of solid waste generated (source reduction);
- Recycle as much of the solid wastes as possible (recycling);
- Make use of the energy and nutrient value of the solid wastes (waste to energy and composting); and
- Properly dispose of the remaining solid wastes (environmentally safe landfill disposal).<sup>1</sup>

### **7.7.3 Significance Criteria**

Based on the CEQA Guidelines,<sup>2</sup> the project would be considered in this EIR to have a potentially significant impact on solid waste and recycling services if its implementation would:

- (a) require or result in the construction of new solid waste disposal facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects;
- (b) be served by a landfill with insufficient permitted capacity to accommodate the project's waste disposal needs; or
- (c) breach published national, state, or local standards relating to solid waste or litter control.

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<sup>1</sup>A-N West, Inc., pages 10-11.

<sup>2</sup>CEQA Guidelines, Appendix G, Items XIII(e), XVI(f), and XVI(g).

#### **7.7.4 Impacts and Mitigation Measures**

**Solid Waste and Recycling Service Impacts.** The proposed redevelopment plan amendment would facilitate development consistent with the General Plan that would in turn increase demand for solid waste disposal and recycling services in Richmond. As established in the General Plan EIR (page IV.D.24), currently available landfills have adequate capacity to accommodate General Plan buildout conditions.

Since development within the Merged Project Area would be undertaken in accordance with General Plan land use designations and zoning regulations (as explained in section 1.2.4, Future Development Assumptions, in chapter 1, Introduction, of this EIR), or consistent with other discretionary actions subject to environmental review, solid waste and recycling service demand in the Merged Project Area would be consistent with City plans. Development under the proposed redevelopment plan amendment would be required to comply with City policies, programs, and regulations to mitigate potential impacts on solid waste services as described in the General Plan EIR. Specifically applicable provisions cited in the General Plan EIR include General Plan Policy CF-H.9 and Implementation Program CF-H.6 (see section 7.7.2, Pertinent Plans and Policies, above). These provisions call upon the City to implement the goals of the Contra Costa County Solid Waste Management Plan to reduce the amount of solid waste generated, recycle as much solid waste as possible, and make use of the energy and nutrient value of solid waste.<sup>1</sup>

Since the proposed redevelopment plan amendment would not increase solid waste and recycling service demand beyond what could already occur, and since future development would be subject to City plans, regulations, and requirements for environmental review, the project's impact and its contribution to cumulative impacts would be ***less than significant***.

**Mitigation.** No significant impact on solid waste service has been identified; no mitigation is required.

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<sup>1</sup>Richmond Redevelopment Areas Merger and Amendments Draft EIR, February 1999, pages 182-183.



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## 8. AESTHETICS

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This EIR chapter describes the existing visual environment within and surrounding the Merged Project Area, and identifies the potential impacts of anticipated redevelopment plan amendment-facilitated rehabilitation and development activities on these conditions.

### 8.1 SETTING

#### 8.1.1 General Visual Character of the Project Area

The Richmond planning area is generally comprised of three major landscape elements: the open waters and shoreline of San Francisco Bay and San Pablo Bay to the west; the relatively flat, low expanses of the Bay Plain east of the shoreline; and two generally southwest-northwest trending hillside and ridgeline forms--the San Pablo-Potrero Hills range, which is the most visually prominent ridgeline in the planning area, extending from the Santa Fe Channel on the south to Point San Pablo on the north, and the southwest-northeast trending Sobrante Ridge that forms the eastern visual edge of the city.

The San Pablo-Potrero Hills range forms the San Pablo Peninsula and rises from sea level to over 400 feet in elevation. Point San Pablo at the northern tip of the peninsula is one of a number of large bedrock outcrops that represent distinctive visual landmarks along the bay shoreline.

The City of Richmond General Plan identifies a number of important vistas and visual features, including the city's San Francisco Bay and San Pablo Bay shorelines and numerous shoreline and inland views of San Pablo Bay, San Francisco Bay, the Bay Bridge, Brooks Island, the Richmond-San Rafael Bridge, the San Francisco skyline, and Mount Tamalpais.

General Plan-identified "Scenic Corridors" in the Merged Project Area vicinity include the Richmond Parkway (Garrard Boulevard and Castro Street) loop and Western Drive, which travels along the southwestern edge of the San Pablo Peninsula.

General Plan-identified scenic views from the Richmond Parkway loop in the Merged Project Area vicinity include prominent foreground views of the Hilltop area and, south of Hilltop, views of vacant lands interspersed with sporadic industrial facilities, greenhouses, and the Parchester/ North Richmond residential areas, with occasional long-range views toward bay shoreline areas and Mount Tamalpais beyond.

Views from Western Drive along the southwestern edge of the San Pablo Peninsula include panoramic vistas of San Pablo Bay, the Marin County hills, and San Francisco Bay, as well as foreground views of Red Rock, the Richmond-San Rafael Bridge, and the Brothers Islands. The segment of Western Drive that reaches the hilltop above Point San Pablo between the Terminal 4 and Point San Pablo Yacht Harbor subareas provides a panoramic view of San Francisco Bay, San Pablo Bay, the Marin County hills, and Mount Tamalpais.

The General Plan Technical Appendix (section C of Volume Two) also cites I-580 as a travelway providing mixed views of Richmond's predominantly urban environment, including industrial facilities to the south and mixed residential and commercial areas to the north.

### **8.1.2 Project Area Visual Characteristics**

The Merged Project Area encompasses approximately 5,348 acres within the Richmond planning area, including large portions of central and southern Richmond; parts of northern, western, and northwestern Richmond; and properties at the tip of the San Pablo Peninsula. General visual characteristics within the Merged Project Area are described below.

(a) Central Richmond. The central portion of the Merged Project Area is characterized by a generally flat internal and surrounding "Bay Plain" topography and a highly urbanized landscape with mixed low-, medium- and high-density residential uses and numerous pockets of commercial use, plus an area of light industrial use along Richmond Parkway (Garrard Boulevard). The General Plan identifies two principal visual landmarks in the city's central area: the Civic Center and Social Security Building. The area's east-west oriented grid pattern provides occasional intermediate vistas to the west of the San Pablo-Potrero Hills, and distant vistas to the west and southwest of Mount Tamalpais, the Bay Bridge, and the San Francisco skyline.

(b) Southern Richmond. In the southern Richmond portion of the Merged Project Area, mildly sloping hillside terrain forms the southern foot of the San Pablo-Potrero Hill ridgeline (one of the most distinctive visual features of the city). This area contains a mixture of residential, commercial, industrial, and park/recreational uses. Vantage points provide views of Mount Tamalpais to the west; Harbor Channel, the Richmond Inner Harbor, Brooks Island, and San Francisco Bay and beyond to southeast and south; and the East Bay hills and Albany Hill to the east and southeast.

(c) Western and Northwestern Richmond. The western Richmond portion of the Merged Project Area has generally flat terrain with an established industrial landscape, with heavy and light industrial development, including warehouses, distribution centers, vehicle storage, and bulk storage. This area includes the Richmond Parkway (Garrard Boulevard and Castro Street) loop, which is identified in the City's General Plan as a visual corridor. The southern segments of these two routes provide views of the Potrero-San Pablo Hills to the west. Northwestern Richmond also contains vacant land, where views to the west include the bay and Marin County hills.

(d) San Pablo Peninsula. The San Pablo Peninsula portion of the Merged Project Area has flat to sloping terrain. The peninsula's northwestern tip, Point San Pablo, is one of a number of familiar visual landmarks along the San Francisco Bay/San Pablo Bay shoreline. The peninsula contains mainly industrial and recreational uses and undeveloped areas. The shoreline edges of Point San Pablo are particularly important visual features, providing spectacular vistas of San Francisco Bay, the Bay Bridge, the San Francisco skyline, the Marin County hills and Mount Tamalpais, and San Pablo Bay. Internally, the San Pablo Yacht Harbor and the steep Potrero Hill backdrop are important scenic features.

(e) Hilltop Area. This portion of the Merged Project Area has flat to sloping terrain and contains commercial development. Some vantage points in the vicinity provide views of the Potrero-San Pablo Hills and the San Francisco skyline and Bay Bridge. The Hilltop Mall

complex, which adjoins this portion of the Merged Project Area, is one of the City's most visually prominent human-made forms and is described in the City's General Plan as one of the planning area's important visual "nodes" and "man-made visual landmarks."

## 8.2 PERTINENT PLANS AND POLICIES

### 8.2.1 City of Richmond General Plan

(a) Pertinent Goals and Policies. The City of Richmond General Plan Land Use Element, Circulation Element, and Open Space and Conservation Element contain the following goals and policies that, in governing all project-related redevelopment activities and project-related development, would serve to mitigate associated adverse aesthetic impacts:

#### **General Policies**

- *Evaluate project proposals for their contribution to improving Richmond's aesthetic and economic values. (Policy LU-A.1)*
- *Integrate urban design elements into new and existing developments (e.g., landscaping, street furniture, works of art, underground utilities, and control of commercial signing). (Policy LU-A.3)*
- *Preserve and enhance existing cultural and artistic artifacts and resources in the City. (Same as Community Facilities Element Policy CF-K.2). (Policy LU-A.5)*
- *Encourage commercial land industrial facilities to enhance and complement the surrounding areas. (Policy LU-B.1)*
- *Require sufficient visual open space and/or landscaped screening between industrial operations and adjacent residential or recreational activities in order to create adequate buffers. (Policy LU-B.5)*
- *Ensure that new industrial developments do not detract from the aesthetics of an area. (Policy LU-C.3)*
- *Require new development to preserve the unique view opportunities of the shoreline and ridgelines in order to maximize their availability to the public. (Policy LU-E.2)*
- *Establish design standards that allow for functional and compatible mixed-use development. (Policy LU-G.1)*
- *Integrate urban design elements (e.g., landscaping, street furniture, underground utilities, and control of commercial signing) in transportation improvement projects. (Policy CIR-B.10)*
- *Protect the predominantly natural character of the hills and ridges listed in Goals OSC-F by regulating height, color, material and siting of structures, amounts of cut and fill, placement of utility crossings, and removal of vegetation. (Policy OSC-F.1)*

- *Protect the vista points shown on the Inventory of Visual Forms, Technical Appendix for the Richmond General Plan. (Policy OSC-G.1)*
- *View corridors of the Bay, the hills and other features should be protected through controls on the siting and height of buildings. (Policy OSC-G.3)*

### **Residential Area Policies**

- *Retain, to the extent practical, the grain of existing single-family residential neighborhoods by encouraging small-scaled infill projects that avoid disruption of the existing fabric. (Policy LU-K.3)*

### **Industrial Area Policies**

- *Establish attractive settings for light industrial and industrial/office flex activities along the major thoroughfares and freeways. (Policy LU-O.1)*

It is not expected that the goals and policies listed above will change substantially with the anticipated update of the General Plan now underway.

(b) Area-Specific Guidelines. In addition, the *Land Use Element, Circulation Element, Community Facilities Element, Economic Development Element, and Open Space and Conservation Element* of the General Plan contain the following relevant “area-specific guidelines”:

#### **Shoreline Areas:**

##### Shoreline--General:

- *Preserve views of the Bay and the regional landscape from the trails and open spaces along the shoreline area's ridgelines by controls on siting and height of adjacent structures. (Land Use Element, Shoreline General Guideline 2)*

##### West Shoreline:

- *Give priority to preserving and enhancing the potential amenities of the shoreline's variety of edges and of the landmark character of its adjacent hills. (Land Use Element, West Shoreline Guideline 9)*

##### South Shoreline:

##### *Point Isabel:*

- *Require new development to preserve the unique view opportunities of this portion of the shoreline and make these views available to the public to the maximum extent feasible. (Land Use Element, Point Isabel Guideline 3)*
- *Encourage clustered development of industry in upland areas where the values of the land are not affected by the views or access to the water. (Comment: Guideline 4 applies to upland areas only and is established to help achieve the following objectives: (a) minimize the visual impact of development, (b) reduce the requirements for multiple vehicular access,*

*(c) eliminate the need for filling the Bay or any marsh or mudflat, and (d) minimize the impact of development on native vegetation and wildlife habitats.) (Land Use Element, Point Isabel Guideline 4)*

- *Establish specific view corridors as links between Richmond's most urbanized areas and the waterfront. (Open Space and Conservation Element, Point Isabel Guideline 9)*

#### *Marina Bay:*

- *Utilize the following appearance and design guidelines to evaluate proposed development in the Marina Bay Area. (Refer to the Revised Sketch Plan for Public Access, dated 29 January 1987, Revised 17 February 1987)...(Land Use Element, Marina Bay Guideline 2) [NOTE: The guidelines address overall development concept; relationship to surrounding area; public park/open space; access corridors; view corridors, viewpoints, and landmarks; landscape and other types of buffers; edges; gateways; security considerations; perimeter access; public parks and parking; private tennis park; and private streets. See pages LU-26 through LU-30 of the Land Use Element.]*
- *Approve permit requests, to the City of Richmond and BCDC, for proposed development within the water area and the 100-foot BCDC permit zone only if they conform to the Appearance and Design Guidelines for the Marina Bay Area, all relevant policies of the Richmond General Plan, and the McAteer-Petris Act as well as: a detailed investigation of design constraints and potentials found in those areas outside the 100-foot BCDC shoreline permit zone, that, because of the uses or physical features proposed, are relevant subjects for study. In addition to the more specific detailed data necessary for any permit, the project proposal shall be completed to a level of detail synonymous with illustrative site planning. This could include the arrangement of spaces for appropriate land use, the location and scale of structures to provide harmonious relationships, the provision of access and circulation, the design of services, and the consideration of natural features. In addition, the following specific criteria should be included in the project proposal:...(Land Use Element, Marina Bay Guideline 3) [NOTE: See criteria listed on pages LU-31 through LU-33 of the Land Use Element.]*
- *Ensure that appropriate design features and buffering elements are incorporated in new roadways serving Redevelopment Project Area 11-A so that the roads will have the least possible detrimental impacts on adjacent land uses and environmental values. (Circulation Element, Marina Bay Guideline 1)*

#### North Shoreline:

- *Upgrade and maintain the visual appearance and unity of the North Richmond Shoreline area through architectural and landscape requirements and utility undergrounding. (Land Use Element, North Shoreline Guideline 1)*
- *Require projects adjacent to existing and proposed parks or recreational corridors to minimize impacts on the recreational values of those facilities through the use of buffers, visual screening and lower density or less intense development as a transition from development areas to the recreational use. (Land Use Element, North Shoreline Guideline 2)*

- *Require a shadow analysis for projects adjacent to commercial nurseries and protect the solar access of affected properties.* (Land Use Element, North Shoreline Guideline 3)
- *Require screening of all outside storage/maintenance areas from public streets.* (Land Use Element, North Shoreline Guideline 4)
- *Create an aesthetically pleasing visual character for the North Richmond Shoreline Area and an image that is consistent with the scenic quality of the shoreline setting.* (Land Use Element, North Shoreline Guideline 8)

***Iron Triangle:***

- *Eliminate vacant land and industrial uses unrelated to core activities which adversely affect the attractiveness of the area.* (Economic Development Element, Iron Triangle Guideline 9)
- *Allow for residential, commercial and industrial development within the area bounded by Garrard Boulevard, 2nd Street and Macdonald Avenue with appropriate controls to minimize land use conflicts and to ensure that new development enhances the surrounding area.* (Economic Development Element, Iron Triangle Guideline 10)

## **8.3 IMPACTS AND MITIGATION MEASURES**

### **8.3.1 Significance Criteria**

As defined by Appendix G of the CEQA Guidelines,<sup>1</sup> the proposed redevelopment plan amendment and/or amendment-facilitated development may be deemed in this EIR to have a significant environmental effect on visual quality if it will:

- (a) have a substantial, adverse effect on a scenic vista;
- (b) substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a *state scenic highway*;
- (c) substantially degrade the existing visual character or quality of the site and its surroundings; or
- (d) create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. "Glare" is defined in this EIR as the reflection of harsh bright light sufficient to cause physical discomfort or loss in visual performance and visibility.

The Merged Project Area is not traversed by or adjacent to a designated *state scenic highway*. Therefore, criterion (b) would not be applicable to this project.

### **8.3.2 Visual Improvement Actions Associated with Redevelopment Plan Amendment**

As discussed in chapter 3, Project Description, the proposed redevelopment plan amendment would allow continuation of the following redevelopment-related purposes and actions pertaining to aesthetics:

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<sup>1</sup>2002 CEQA Guidelines, Appendix G, Items I(a) through I(d)

- elimination of blighting influences and the correction of deficiencies, including, but not limited to, abnormally high building vacancies; abandoned, deteriorated and dilapidated buildings; underutilized land; depreciated property values; and deficient public improvements, facilities and utilities;
- removal of structurally substandard buildings to permit the return of land to economic use through new construction;
- rehabilitation of those structures that are culturally, historically, physically, and aesthetically worthy of rehabilitation, with emphasis on owner participation; and
- public improvements needed to support other objectives of the Redevelopment Plan, including but not limited to, streetscape improvements and recreational and community facilities.

See further discussion in chapter 3, Project Description, of this EIR.

### **8.3.3 Impacts and Mitigation Measures**

**Beneficial Impacts on the General Visual Character of the Project Area.** Continued Redevelopment Agency actions authorized by the proposed redevelopment plan amendment, including activities targeted to eliminate blight, would be expected to improve visual conditions at affected locations and help foster an improved overall neighborhood and community image. In particular, redevelopment actions that could substantially improve the visual character of individual sites, neighborhoods, and travelways within the Merged Project Area and foster an improved overall community image and identity include actions to (1) remove structurally substandard buildings; (2) improve streetscapes; (3) provide for the visual benefits of new construction; (4) rehabilitate structures that are "culturally, historically, physically and aesthetically worthy of rehabilitation"; (5) eliminate environmental deficiencies, including lots of inadequate size and shape (through land assembly); (6) improve existing inadequate street and alley layouts; (7) eliminate the mixed character of uses; and (8) improve public infrastructure and utilities. Such project-related improvement in the overall aesthetic environment in Richmond would represent a ***beneficial visual impact***.

**Mitigation for Beneficial Impacts on the General Visual Character of the Project Area.** No significant adverse environmental impact has been identified; no mitigation is required.

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**Impact 8-1: Adverse Visual Incompatibility Impacts on Existing Uses.**

Redevelopment-facilitated development within the Merged Project Area could result in adverse visual incompatibilities between differing land uses, building scales, building heights, etc. In particular, redevelopment-assisted new industrial, commercial, industrial/office/ flex, hotel, or higher-density residential development within or adjacent to an existing lower-density residential neighborhood, park, or open space use, or adjacent to the bay shoreline, could be perceived as visually incompatible and/or create light or glare problems. The resulting degradation of the existing visual character or quality of the existing use would represent a **significant adverse project and cumulative visual impact** (see criteria (c) and (d) under section 8.3.2, "Significance Criteria," above).

**Mitigation 8-1.** As a condition of Redevelopment Agency assistance, and through the City's design review process, the City shall require redevelopment-assisted discretionary rehabilitation projects and redevelopment-assisted discretionary new development projects to:

- achieve a "pleasant transition" between residential, commercial and industrial land uses (as per Richmond General Plan *Land Use Element Goal LU-B*);
- incorporate effective and attractive design elements, visual buffering and/or landscape screening to increase visual compatibility (setbacks, appropriate building mass and density transition, plantings, etc.);
- for structural rehabilitation and new residential construction within or adjacent to predominantly single-family residential neighborhoods, to the extent practical, retain the "grain" of the existing neighborhood through small-scale, infill design approaches that avoid substantial disruption of the existing neighborhood fabric (per *Land Use Element Policy LU-K.3*);
- incorporate other on- and off-site features to enhance and complement surrounding areas (*Land Use Element Policy LU-B.1*); and
- use exterior lighting only where necessary for safety and security purposes, and ensure that stationary overhead light fixtures are shaded and directed away from adjacent residential areas and other sensitive land uses.

Implementation of the above measures to the satisfaction of the City Planning Department staff, Design Review Board, and Planning Commission would reduce this impact to a **less-than-significant level**.

**Impact 8-2: Impacts on Visual Quality Along Principal Travelways.**

Redevelopment-facilitated residential, commercial, industrial or industrial/office flex development adjacent to General Plan-identified scenic corridors and major thoroughfares, including the Richmond Parkway loop (Garrard Boulevard and Castro Street), 23rd Street, Barrett Avenue, Western Drive, and I-580, and along other visually sensitive streets traversing the Merged Project Area, if not sensitively designed, could substantially degrade the visual character of the travelway and surrounding area, representing a ***potentially significant adverse project and cumulative visual impact*** (see criterion (c) under section 8.3.2, "Significance Criteria," above).

**Mitigation 8-2.** As a condition of redevelopment assistance to new discretionary development adjacent to General Plan-identified scenic corridors and major thoroughfares, and along other visually sensitive streets traversing the Merged Project Area, the City shall encourage creation of attractive settings along these frontages (as per *Land Use Element* Policies LU-D.1 and LU-O.1) through sensitive building siting and architectural design, and through effective use of landscaping, signage control, utilities undergrounding, etc. Implementation of this measure to the satisfaction of the City Planning Department staff, Design Review Board, and Planning Commission would reduce this impact to a ***less-than-significant level***.

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**Impact 8-3: Impacts on Views from Southern and Western Richmond.**

Redevelopment-facilitated development activity in southern and western Richmond, unless sensitively designed, could eliminate or diminish realization of General Plan-identified stationary view opportunities, including views of the Harbor Channel, Richmond Inner Harbor, Brooks Island, and San Francisco Bay in southern Richmond; and views of the Potrero-San Pablo Hills ridgeline in western Richmond. These possible adverse effects on scenic vistas represent a ***potentially significant adverse project and cumulative visual impact*** (see criterion (a) under section 8.3.1, "Significance Criteria," above).

**Mitigation 8-3.** As a condition of Redevelopment Agency assistance actions in southern and western Richmond, the City shall require identification of key vista points in the affected area, in consultation with City Planning Department staff, for possible accommodation of vista points, and provide for protection of these key vista points through appropriate building siting and height controls, and possible public vantage point provisions in individual projects. Implementation of this measure to the satisfaction of the City's Design Review Board and Planning Commission would reduce this potential adverse visual impact to a ***less-than-significant level***.

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**Impact 8-4: Impacts on Valuable Shoreline Views and Visual Amenities.**

Redevelopment-facilitated development activity at Point San Pablo and in other shoreline areas, if not sensitively designed, could displace, block, or impair visual and public access to existing and potential shoreline amenities, and could block, impair, or detract from unique shoreline view opportunities. These possible adverse effects on scenic amenities and vistas represent a **potentially significant adverse project and cumulative visual impact** (see criterion (a) under section 8.3.2, "Significance Criteria," above).

**Mitigation 8-4.** As part of, or a condition of Redevelopment Agency assistance actions in shoreline areas, and through the City's design review process, the City shall implement the following measures:

- place high priority on preserving and enhancing existing and potential shoreline amenities (as per *Land Use Element Policy LU-E.1* and *Land Use Element West Shoreline Guideline 9*),
- require any Redevelopment Agency-assisted new development activities to preserve unique view opportunities of the shoreline and maximize public access to shoreline views (as per *Land Use Element Policy LU-E.2*), and
- require developer identification of specific important vistas, view corridors, and vista points of the shoreline and bay, in consultation with City Planning Department staff, and in response to important vistas in the area as generally identified on the City of Richmond General Plan Inventory of Visual Forms map (Figure C-1), for possible accommodation of public shoreline access points, and/or shoreline trail provisions, and protect these identified specific vistas and view corridors through appropriate building siting and height controls (as per General Plan *Open Space and Conservation Element Policy OSC-G.3*).

Implementation of a combination of the above measures to the satisfaction of City staff, the Design Review Board, and the Planning Commission, would reduce this potential adverse visual impact to a **less-than-significant level**.

**Impact 8-5: Impacts on Bay Trail Implementation and Shoreline Trail Views.**

Redevelopment-facilitated development activity at Point San Pablo and in other shoreline areas, if not sensitively designed, could also impair effective implementation of designated Bay Trail segments and associated shoreline public access and view opportunities. This possible adverse effect on a scenic vista represents a **potentially significant adverse project and cumulative visual impact** (see criterion (a) under section 8.3.2, "Significance Criteria," above).

**Mitigation 8-5.** As a condition of Redevelopment Agency assistance, and through the City's design review process, the City shall promote implementation of designated Bay Trail segments and encourage preservation of views of the bay shoreline and bay from the trail through appropriate building siting and height controls, and possible public vantage point provisions (General Plan *Land Use Element* Shoreline General Guideline 2). Implementation of this measure to the satisfaction of the City Planning Department staff, Design Review Board, and Planning Commission would mitigate this impact to a ***less-than-significant level***.



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## 9. BIOLOGICAL RESOURCES

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This EIR chapter describes possible impacts of the proposed redevelopment plan amendment program and program-facilitated growth on biological resources, and any warranted mitigation measures. The setting description in this chapter has been derived from information included in the City of Richmond General Plan and the City-certified 1994 City of Richmond General Plan and Zoning Ordinance Updates Program EIR, 1999 Richmond Redevelopment Areas Merger and Amendments EIR, 2002 Final EIS/EIR for the Disposal and Reuse of Fleet and Industrial Supply Center, Naval Fuel Depot Point Molate, 2005 Proposed Richmond Redevelopment Plan Amendment Program EIR, and 2008 Proposed Richmond Enterprise Zone Re-Designation Program EIR.

### 9.1 SETTING

#### 9.1.1 Local and Regional Context

Richmond lies along the northeast portion of San Francisco Bay and the southeast side of San Pablo Bay; marshes border the west and south sides of the city. Most of the area within the city boundaries is urbanized, and the city is bounded on the north and northeast by urbanized areas, including unincorporated communities. The Berkeley Hills, San Pablo Ridge, and Sobrante Ridge are in the eastern and northeastern portions of the Richmond planning area. The city is bounded on the east by lands of the East Bay Regional Park District and East Bay Municipal Utility District. On the south, the city is bounded by urbanized areas, including the cities of El Cerrito, Albany, and Berkeley.<sup>1</sup>

#### 9.1.2 Vegetation

Although most of the area within the Richmond city limits is urbanized, various natural habitat types remain within or near the Merged Project Area. These vegetation types include shallow-water marine habitats, tidal mudflats, perennial streams, intermittent streams, salt marshes, coastal brackish marshes, herbaceous hydrophytic vegetation, riparian habitats, native grassland, non-native grassland, and ruderal vegetation.<sup>2</sup> These habitats generally occur mainly in the southern, western, and northwestern parts of the city, such as the Marina Bay vicinity and Point San Pablo. The central Richmond and Hilltop areas and surrounding vicinity are largely developed and are less likely to contain substantial remaining vegetation.

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<sup>1</sup>City of Richmond, City of Richmond General Plan and Zoning Ordinance Updates Program Draft EIR, August 17, 1993, page IV.H-1.

<sup>2</sup>Information in this section is derived from the 1999 Richmond Redevelopment Areas Merger and Draft Amendments EIR, pages 108-111; and the 2002 Final EIS/EIR for the Disposal and Reuse of Fleet and Industrial Supply Center, Naval Fuel Depot Point Molate, page 3-59.

(a) Shallow-Water Marine Habitats. Shallow-water marine habitats are found in the southern and western parts of the Merged Project Area. Eelgrass (*Zostera maritime*) is an uncommon but very important component of this habitat. It grows in the shallower water areas of this habitat.

(b) Tidal Mudflats. Tidal mudflat habitats are found in the southern and western parts of the Merged Project Area, including the Point Molate area. Tidal mudflats are devoid of vegetation, and during an ebb tide, are exposed as bare mud. Eelgrass grows uncommonly on the more frequently inundated portions of mudflat areas.

(c) Perennial Streams. Rheem, San Pablo, and Wildcat creeks are three of the larger creeks of which short sections traverse the Merged Project Area. Perennial streams convey flowing water year-round and support various species typically of willow and herbaceous hydrophytic vegetation. (See subsections (g) and (h) below for descriptions of the species present in these vegetation types.)

(d) Intermittent Streams. Intermittent streams have been identified in the western part of the Merged Project Area, along railroad tracks at 6<sup>th</sup> Street and Lincoln Avenue. Intermittent streams convey water only during and shortly after the rainy season and remain dry during the rest of the year. The streambeds and banks of such streams support riparian vegetation or vegetation typically associated with wetlands as well as upland areas. Intermittent streams support various species of willow and herbaceous hydrophytic vegetation. (See subsections (g) and (h) below for descriptions of the species present in these vegetation types.)

(e) Salt Marshes. Salt marshes have been identified in the southern and western parts of the Merged Project Area. Salt marshes vary from small and narrow patches at the edge of bay fill to large and extensive areas. They typically support three dominant species, each in its own zone. Salt grass (*Distichlis spicata*) grows in the upper zone, pickleweed (*Salicornia virginica*) in the middle zone, and cordgrass (*Spartina foliosa*) in the lower zone.<sup>1</sup> Pickleweed typically grows at 100 percent cover, while the cover of cordgrass and salt grass is less. Other common plants within salt marshes include jaumea (*Jaumea carnosa*), fathen (*Atriplex triangularis*), and gumplant (*Grindelia stricta* var. *angustifolia*), which grow within the pickleweed zone.

(f) Coastal Brackish Marshes. Coastal brackish marsh has been identified in the southern and western parts of the Merged Project Area, including near the mouths of San Pablo and Wildcat creeks. Coastal brackish marsh vegetation typically develops in standing or slow-moving water at the edges of ponds and streams near coastal bays and estuaries. Salinity derives from tidal inundation or from saline soils of diked or otherwise degraded historical salt marshes. Brackish marshes have species in common with both salt marsh and freshwater marsh and are typically dominated by three- to five-foot-tall emergent plants. The dominant plant species in brackish marshes is generally alkali bulrush (*Scirpus robustus*), but arroyo willow (*Salix lasiolepis*) and Himalayan blackberry (*Rubus discolor*) are present around the edges of the marshes. These two species are not tolerant of saline conditions.

(g) Herbaceous Hydrophytic Vegetation. Herbaceous hydrophytic vegetation is dominated by a variety of hydrophytic plant species. These species include those that occur in permanent wetlands (e.g., cattail [*Typha* sp.], bulrush [*Scirpus* spp.], water cress [*Rorippa nasturtium-*

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<sup>1</sup>These three zones correspond to the amount of tidal inundation. The cordgrass zone receives the greatest amount of inundation, the pickleweed zone receives a moderate amount of inundation, and the saltgrass zone receives the least amount of inundation.

*aquaticum*], Dallis grass [*Paspalum* spp.], and ludwegia [*Ludwegia* spp.]) and those that occur in seasonal wetlands (areas that are wet only during a portion of the year) (e.g., Mediterranean barley [*Hordeum marinum* spp. *gussoneanum*], Italian rye grass [*Lolium multiflorum*], rabbit's foot grass [*Polypogon monspessulanus*], loostripe [*Lythrum hyssopifolium*], bristly ox-tongue [*Picris echioides*], toad rush [*Juncus bufonius*], and bird's foot trefoil [*Lotus corniculatus*]). The herbaceous hydrophytic vegetation type has also experienced a decline in extent due to development. This vegetation type is also considered a jurisdictional wetland type.

Herbaceous hydrophytic vegetation has been identified in the western and southern parts of the Merged Project Area. In addition, the City of Richmond General Plan (Figure B-9, "Wetlands & Marsh Areas") identifies wetland areas in the western part of the Merged Project Area; these wetland areas may include this vegetation type. Herbaceous hydrophytic vegetation often occurs in disturbed areas that pond water or other areas supporting wet soil seasonally or permanently.

(h) Riparian Habitats. Riparian vegetation occurs along portions of San Pablo and Wildcat creeks in the western part of the Merged Project Area, and remnants are also found in the vicinity of the far southern part of the Merged Project Area. Riparian vegetation consists of one or more species of willow (arroyo willow, red willow [*Salix laevigata*], and/or yellow willow [*Salix lucida* spp. *lasiandra*]). These willows often grow in association with coast live oak (*Quercus agrifolia*), California bay (*Umbellularia californica*), box elder (*Acer negundo*), and California buckeye (*Aesculus californica*). Common associates in the understory are creek dogwood (*Cornus stolonifera*), snowberry (*Symphoricarpos* sp.), poison oak (*Toxicodendron diversilobum*), and California blackberry (*Rubus ursinus*). Riparian vegetation has also experienced a severe decline in abundance due to development and channelization of creeks. Willow-dominated riparian vegetation is often considered a jurisdictional wetland if growing in a seasonally or permanently wet area.

(i) Native Grassland. Valley needlegrass grassland is present throughout the Potrero Hills from Potrero Point to Point San Pablo (which includes properties within the Merged Project Area). California oatgrass grassland occurs in small stands near the Miller Knox Regional Shoreline and elsewhere in the southern part of the Merged Project Area. Such native grassland species are considered sensitive because they have experienced a decline due to grazing and the conversion of land to agricultural and urban uses. Valley needlegrass and California oatgrass occur as remnant stands in a few such areas of Richmond. Valley needlegrass grassland is dominated by valley needlegrass (*Nassella pulchra*). Other species present in such areas include blue-eyed grass (*Sisyrinchium bellum*), California poppy (*Eschscholzia californica*), lupines (*Lupinus* spp.), and various species of non-native grass. California oatgrass grassland occurs in mesic areas and occasionally in jurisdictional wetlands. It is dominated by California oatgrass (*Danthonia californica*), blue-eyed grass, and various species of non-native grass.

(j) Non-Native Grassland. Non-native grassland has been identified in the western and southern parts of the Merged Project Area. Non-native grassland is the predominant grassland in lowland California and is found throughout the San Francisco Bay Area, the foothills of the Coast Range and Sierra Nevada, and the Great Central Valley. It consists of sparse to dense growth of mostly annual species of non-native grasses. Dominant species include ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), wild oats (*Avena fatua* and *Avena barbata*), hare barley (*Hordeum murinum* ssp. *leporinum*), and Italian rye grass. Ruderal forbs observed include willow-herb (*Epilobium brachycarpum*), yellow star-thistle (*Centaurea solstitialis*) wild mustard (*Brassica nigra*), and poison hemlock (*Conium maculatum*).

(k) Ruderal Vegetation. Ruderal vegetation occurs where soils have been disturbed such as by grading, filling, excavating, or tilling. It is therefore likely to occur throughout the Merged Project Area. Ruderal vegetation is composed of non-native species of weeds and is dominated by prickly lettuce (*Lactuca serriola*), fennel (*Foeniculum vulgare*), short-pod mustard (*Hirschfeldia incana*), bristly ox-tongue, bull thistle (*Cirsium vulgare*), wild radish (*Raphanus* sp.), poison hemlock, and milk thistle (*Silybum marianum*).

(l) Other Vegetation Types. Other habitats found in Richmond include brushland, eucalyptus woods, coast live oak woodlands, coastal bluffs, coastal prairie, willow thickets, freshwater marshes, and sandy and rocky beach areas. These coastal and upland vegetation communities have been identified in the Point Molate area.<sup>1</sup>

### **9.1.3 Wildlife**

A variety of wildlife species may occur within or near the Merged Project Area. This section discusses the species that potentially inhabit each of the various vegetation types described in section 9.1.2 above.<sup>2</sup>

(a) Shallow-Water Marine Habitats and Tidal Mudflats. Shallow-water marine habitats and tidal mudflats potentially support a variety of waterfowl and shorebird species. Tidal mudflats are important areas for the production of benthic (bottom-dwelling) invertebrates. These invertebrates are the basis of a food chain and these areas are important resting and foraging areas for migrant and resident species. Eelgrass beds are very important habitat areas for invertebrates and fish. Fish forage and spawn in eelgrass beds. Invertebrates live among and feed on either eelgrass or algae growing on the blades of eelgrass, contributing to the diversity of animal life in the shallow-water and mudflat habitats.

(b) Salt Marshes. Salt marshes are important habitats that are potentially used by a variety of special-status species, and also serve as feeding and resting areas for migrating shore birds and waterfowl and foraging areas for raptors (see section 9.1.4 below).

(c) Herbaceous Hydrophytic Vegetation. Herbaceous hydrophytic vegetation is used by wildlife that occur in marshes or grasslands. Marsh wrens (*Cistothorus palustris*) are expected to occur in areas dominated by cattail and bulrush. Pacific chorus frogs (*Pseudacris regillii*), western toads (*Bufo boreas*), and bullfrogs (*Rana catesbiana*) can be expected to breed in these areas. California red-legged frog (*Rana aurora draytonii*) may occur in a few suitable areas.

(d) Riparian Areas and Streams. Riparian areas and streams (both perennial and intermittent) support a diverse assemblage of wildlife species. These areas are used as resting and foraging sites for migrating song birds. Riparian trees are used for roosting by raptors and other avian species and amphibians breed in the drainages. Various herons and egrets forage in the watercourses. These species are great blue heron (*Ardea herodias*), black crowned night heron (*Nycticorax nycticorax*), great egret (*Casmerodius albus*), and snowy egret (*Egretta thula*).

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<sup>1</sup>Final EIS/EIR for the Disposal and Reuse of Fleet and Industrial Supply Center, Naval Fuel Depot Point Molate, February 2002, page 3-59.

<sup>2</sup>Information in this section is derived from the 1999 Richmond Redevelopment Areas Merger and Amendments Draft EIR, pages 111-113.

(e) Grassland and Ruderal Vegetation. Grasslands provide potential habitat for a variety of wildlife species. Mice and voles (*Peromyscus* spp. and *Microtus* sp.) and California ground squirrels (*Spermophilus beecheyi*) can be abundant in grasslands. These species, along with the western fence lizard (*Sceloporus occidentalis*), form the basis of a food chain that includes long-tailed weasels (*Mustela frenata*), red fox (*Vulpes vulpes*), and various species of raptors. Birds that commonly inhabit grassland areas are Savanna sparrow (*Passerculus sandwichensis*), western meadowlark (*Sturnella neglecta*), song sparrow (*Melospiza melodia*), water pipit (*Anthus spinoletta*), and lark sparrow (*Chondestes grammacus*). These species forage for seeds and insects and also are prey to various species of raptors and mammalian predators.

(f) Other Vegetation Types. A variety of wildlife are potentially found in the coastal and upland vegetation communities along the bay shoreline, such as in the vicinity of Point San Pablo.<sup>1</sup> Large mammals may include mule deer (*Odocoileus hemionus*), coyote (*Canis latrans*), red fox (*Vulpes vulpes*), raccoon (*Procyon lotor*), and striped skunk (*Mephitis mephitis*). Small mammals may include the California vole (*Microtus californicus*), deer mouse (*Peromyscus maniculatus*), Botta's pocket gopher (*Thomomys bottae*), California ground squirrel (*Spermophilus beecheyi*), and black-tailed hare (*Lepus californicus*).

Coastal aquatic areas can potentially attract shorebirds, ducks, and ocean birds, such as gulls, mallards, cormorants, and herons. Upland areas may support raptors, such as the red-tailed hawk (*Buteo jamaicensis*), northern harrier (*Circus cyaneus*), American kestrel (*Falco sparverius*), and great horned owl (*Bubo virginiana*). Other upland bird species may include the turkey vulture (*Cathartes aura*), white-crowned sparrow (*Zonotrichia leucophrys*), western meadowlark (*Sturnella neglecta*), and blackbirds (*Agelaius* spp.).

Reptiles in these areas may include the western fence lizard (*Sceloporus occidentalis*), southern alligator lizard (*Gerrhonotus multicarinatus*), terrestrial garter snake (*Thamnophis elegans*), and gopher snake (*Pituophis melanoleucus*). Amphibians may include the slender salamander (*Batrachoseps attenuatus*) and the Pacific chorus frog (*Hyla regilla*).

A wide variety of fish and marine invertebrates occur in offshore bay waters. Fish common to the offshore waters include striped bass (*Morone saxatilis*), topsmelt (*Atherinops affinis*), and shiner perch (*Cymatogaster aggregate*). Pacific herring (*Clupea pallasii*), valued as a commercial, recreational, and ecological resource within the estuary, are known to use nearshore waters in the vicinity of Point San Pablo.

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<sup>1</sup>Information in this subsection is derived from the 2002 Final EIS/EIR for the Disposal and Reuse of Fleet and Industrial Supply Center, Naval Fuel Depot Point Molate, page 3-59.

#### **9.1.4 Special-Status Species**

Special-status species<sup>1</sup> are plants and animals that are legally protected under the state and/or federal Endangered Species Acts<sup>2</sup> or other regulations, as well as other species that are considered rare enough by the scientific community and trustee agencies to warrant special consideration, particularly with regard to protection of isolated populations, nesting or denning locations, communal roosts, and other essential habitat. Species with legal protection under the Endangered Species Acts often represent major constraints to development, particularly when they are wide-ranging or highly sensitive to habitat disturbance and where proposed development would result in a "take"<sup>3</sup> of these species. (See further discussion under section 9.2.3, "State and Federal Regulatory Framework," below.)

Special-status plants and special status fish and wildlife species that could potentially occur in the vicinity of the Merged Project Area are described below.<sup>4</sup>

(a) Special-Status Plants. Special-status plants that may be found in the vicinity of the Merged Project Area include federal- and state-listed soft bird's beak (*Cordylanthus mollis* spp. *mollis*), for which salt marshes are potential habitat; and fragrant fritillary (*Fritillaria liliacea*), a federal species of concern for which native and non-native grasslands are potential habitat.

In addition, the marsh gumplant (*Grindelia stricta* var. *angustifolia*) has been found in scattered populations along the shoreline off Point Molate. This salt marsh species has no federal or state status but is on California Native Plant Society list 4 (plants of limited distribution).

(b) Special-Status Fish and Wildlife. A variety of special-status wildlife species have the potential to occur in the vicinity of the Merged Project Area. The Richmond Redevelopment Areas Merger and Amendments EIR, which evaluated a series of redevelopment areas within the Merged Project Area, identified three invertebrate species, six fish species, one amphibian

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<sup>1</sup>Special-status species include officially designated (rare, threatened, or endangered) and candidate species for listing by the California Department of Fish and Game (CDFG); officially designated (threatened or endangered) and candidate species for listing by the U. S. Fish and Wildlife Service (USFWS); species considered to be rare or endangered under the conditions of section 15380 of the CEQA Guidelines, such as those identified on lists 1A, 1B, and 2 in the California Native Plant Society (CNPS) *Inventory of Rare and Endangered Vascular Plants of California*; and possibly other species that are considered sensitive or of special concern due to limited distribution or lack of adequate information to permit listing or rejection for state or federal status, such as those included on lists 3 and 4 in the CNPS *Inventory* or identified as animal "Species of Special Concern" by the CDFG. Species of Special Concern have no legal protective status under the state Endangered Species Act but are of concern to the CDFG because of severe decline in breeding populations in California.

<sup>2</sup>The federal Endangered Species Act (FESA) of 1973 declares that all federal departments and agencies shall use their authority to conserve endangered and threatened plant and animal taxa. The California Endangered Species Act (CESA) of 1984 parallels the policies of FESA and pertains to native California taxa.

<sup>3</sup>"Take" as defined by the FESA means to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect" a threatened or endangered species. "Harm" is further defined by the USFWS to include actions resulting in significant habitat modification or degradation.

<sup>4</sup>This information is derived from the 1999 Richmond Redevelopment Areas Merger and Amendments Draft EIR, pages 113-117; and the 2002 Final EIS/EIR for the Disposal and Reuse of Fleet and Industrial Supply Center, Naval Fuel Depot Point Molate, page 3-61.

species, two reptile species, 20 bird species, and eight mammalian species that have special status and have the potential to occur in the area.<sup>1</sup>

Special-status species that may occur in salt marshes within the Merged Project Area include the salt marsh harvest mouse (*Reithrodontomys raviventris*), California clapper rail (*Rallus longirostris obsoletus*), California black rail (*Laterallus jamaicensis coturniculus*), salt marsh common yellowthroat (*Geothlypis trichas sinuosa*), San Pablo song sparrow (*Melospiza melodia samuelis*), San Pablo vole (*Microtus californicus sanpabloensis*), and the salt marsh wandering shrew (*Sorex vagrans halicoetes*). The mammal species in this list generally occur in the pickleweed portion of the marsh, and during high tides take refuge in the cover of the adjacent uplands. Raptors that would be expected to forage in the salt marshes include white-tailed kite (*Elanus leucurus*), northern harrier (*Circus cynaeus*), red-tailed hawk (*Buteo jamaciensis*), red shouldered hawk (*Buteo lineatus*), American kestrel (*Falco sparuvinus*), and short-eared owl (*Asio flammeus*). Occasionally peregrine falcon (*Falco peregrinus*) can be expected to forage in the salt marshes.

In addition, a number of sensitive species may transit through the bay shoreline portions of the Merged Project Area. These species may include the American peregrine falcon (*Falco peregrinus anatum*), California brown pelican (*Pelecanus occidentalis californicus*), California least tern (*Sterna antillarum browni*), and western snowy plover (*Charadrius alexandrinus nivosus*). The National Marine Fisheries Service (NMFS) has reported that winter-run Chinook salmon (*Oncorhynchus tshawytscha*), a federally listed threatened species, uses the deep-channel bay waters near Point Molate during their yearly migration.<sup>2</sup>

## 9.2 PERTINENT PLANS AND POLICIES

### 9.2.1 City of Richmond General Plan

(a) Pertinent Policies and Implementation Programs. The City of Richmond General Plan contains the following policies and implementation programs that, in governing project-related redevelopment activities and project-related development, would serve to mitigate associated adverse biological resources impacts:

- *Preserve habitats shown to be necessary for the preservation or rare and endangered plants and animals.* (Policy OSC-A.1)
- *Preserve unique plant communities and wildlife habitats.* (Policy OSC-A.2)
- *Minimize removal of vegetation in all new developments. In particular, the cutting of mature native woodland trees, especially on unstable slopes and in creekbeds, should be controlled.* (Policy OSC-A.3)

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<sup>1</sup>See Table 9 and Appendix B of the 1999 Richmond Redevelopment Areas Merger and Amendments Draft EIR.

<sup>2</sup>Final EIS/EIR for the Disposal and Reuse of Fleet and Industrial Supply Center, Naval Fuel Depot Point Molate, February 2002, page 3-61.

- *Discourage filling, dredging, and/or development that would have a significant adverse impact on the biological productivity or aesthetic character of the physical features of the area. (Policy OSC-B.1)*
- *Require mitigation measures to avoid any detrimental impact of development on the biological productivity or aesthetic character of open water, marsh, mudflat or tideland. (Policy OSC-B.2)*
- *Ensure that existing open water, marsh, mudflat and tideland areas will be protected to the maximum extent feasible. (Policy OSC-C.1)*
- *Require all new waterfront development...to provide...buffering between such development and adjacent marsh and mudflat areas. (Buffering size should be determined in consultation with State Department of Fish & Game and other relevant agencies.) (Policy OSC-C.2)*
- *Prohibit development that is potentially destructive to the natural qualities of the creeks and is not necessary for flood control. (Policy OSC-H.1)*
- *Preserve stream beds, water courses and channels in their natural state except where needed for flood and erosion control. (Policy OSC-I.2)*
- *Control soil erosion to prevent...destruction of natural waterways. (Policy OSC-I.3)*
- *Prevent creek bank erosion, preserve wildlife habitat, protect the scenic quality of creeks, and secure public access to the natural waterways... (Policy OSC-I.4)*
- *Conserve those natural wildlife habitats which support native species of plants and animals. (Policy OSC-Q.1)*
- *City will continue to utilize environmental reviews under...CEQA to review developments for impact on endangered species and their habitat. As species are identified, protected areas will be provided for them. (Implementation Program OSC-A.1)*
- *City will require revegetation plans as part of all grading permits. The plans will be required to provide for future generation of trees... (Implementation Program OSC-A.3)*
- *City will continue to implement the Landscape Design and Development Guidelines and require the use of native plant species for landscaping purposes, wherever possible. (Implementation Program OSC-A.4)*
- *City will, through the Zoning Ordinance or the Development Review Organization, establish building setbacks, identify and provide locations for public access points along creeks. (Implementation Program OSC-H.1)*
- *City will, through the Zoning Ordinance or the Development Review Organization, require foundations to be set back from the waterways a sufficient distance to prevent undercutting and to preserve wildlife habitat. The City will further cooperate with the Department of Fish and Game in establishing habitat setbacks... (Implementation Program OSC-I.14)*
- *City will require all developers to emphasize creek corridors as an amenity to development. (Implementation Program OSC-I.19)*

It is not expected that the policies listed above will change substantially with the anticipated update of the General Plan now underway.

(b) Area-Specific Guidelines. The *Open Space and Conservation Element* of the General Plan also contains the following relevant “area-specific guidelines”:

West Shoreline:

- *Evaluate any proposals for the use of San Pablo Peninsula...with attention to their effects on the deer population...*(Open Space and Conservation Element, West Shoreline Guideline 1)
- *Urge that the tank farm areas on San Pablo Peninsula, whose secondary function is as open space, retain the natural and topographic features and vegetation as much as possible.* (Open Space and Conservation Element, West Shoreline Guideline 3)

North Shoreline:

- *Evaluate any proposals for the use of San Pablo Peninsula...with attention to their effects on the deer population...*(Open Space and Conservation Element, North Shoreline Guideline 1)
- *Promote replanting and maintenance of creek banks along the improved flood channels of Wildcat and San Pablo Creeks with native plant species. ...*(Open Space and Conservation Element, North Shoreline Guideline 2)
- *Require a setback from San Pablo and Wildcat Creeks for new structures. The size of the setback will be developed through site development review in conjunction with responsible agencies (e.g., Department of Fish and Game, Flood Control District). Lands within these setback areas shall reinforce habitat values and/or trail setting of the adjacent flood control project of these creeks.* (Open Space and Conservation Element, North Shoreline Guideline 4)
- *Require setbacks within shoreline areas to protect wetlands designated by State or Federal regulatory agencies and to provide public access as appropriate. The size of the setback or mitigation will be developed in conjunction with all affected agencies.* (Open Space and Conservation Element, North Shoreline Guideline 5)

South Shoreline:

Point Isabel:

- *Protect open water, mudflats and all tidelands to the maximum extent feasible. Discourage filling dredging, and all development that would have a significant adverse impact on the biological productivity or aesthetic character of the physical features of these areas. Any development which does adversely impact the biological productivity or aesthetic character of open water, marsh, mudflat, or tideland should provide mitigation measures to offset the detrimental impact...*(Open Space and Conservation Element, Point Isabel Guideline 11)

### **9.2.2 State and Federal Regulatory Framework**

In addition to the environmental protection provided by the California Environmental Quality Act (CEQA), other state and federal regulations have been enacted and agencies authorized to provide for the protection and management of sensitive biological resources. State and federal agencies have a lead role in the protection of biological resources under their permit authority set forth in various state and federal statutes and regulations. At the state level, the California Department of Fish and Game (CDFG) is responsible for administration of the California Endangered Species Act, and for protection of streams, water bodies, and riparian corridors through the Streambed Alteration Agreement process under sections 1601-1606 of the California Fish and Game Code. Certification from the California Regional Water Quality Control Board is also required when a proposed activity may result in discharge into navigable waters, pursuant to section 401 of the Clean Water Act and EPA 404(b)(1) Guidelines. At the federal level, the U.S. Fish and Wildlife Service (USFWS) is responsible for implementation of the federal Endangered Species Act and the Migratory Bird Treaty Act, while the U.S. Army Corps of Engineers (Corps) has primary responsibility for protecting wetlands under section 404 of the Clean Water Act.

The Corps and CDFG both have jurisdiction over modifications to stream channels, river banks, lakes, and other wetland features. Corps jurisdiction is established through the provisions of section 404 of the Clean Water Act, which prohibits the discharge of dredged or fill material into "waters" of the United States without a permit, including wetlands and unvegetated "other waters."

### **9.2.3 Migratory Bird Treaty Act**

The Migratory Bird Treaty Act decrees that all migratory birds and their parts (including eggs, nests and feathers) are fully protected. Migratory birds include geese, ducks, shorebirds, raptors, songbirds, wading birds, seabirds, and passerine birds (such as warblers, flycatchers, and swallows). The Migratory Bird Treaty Act (Act) implements various treaties and conventions between the U.S. and Canada, Japan, Mexico and the former Soviet Union for the protection of migratory birds. Under the Act, taking, killing or possessing migratory birds is unlawful.

Unless permitted by regulations, the Act provides that it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not. The Act makes it unlawful to ship, transport or carry from one state, territory or district to another, or through a foreign country, any bird, part, nest or egg that was captured, killed, taken, shipped, transported or carried contrary to the laws from where it was obtained; or import from Canada any bird, part, nest or egg obtained contrary to the laws of the province from which it was obtained.<sup>1</sup>

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<sup>1</sup>16 U.S.C. 703-711.

### 9.3 IMPACTS AND MITIGATION MEASURES

#### 9.3.1 Significance Criteria

Based on the CEQA Guidelines,<sup>1</sup> the project and project-facilitated future development activities would be considered to have a significant biological resources impact if they would:

- (a) have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- (b) have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- (c) have a substantial adverse effect on federally protected wetlands as defined by section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- (d) interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites; or
- (e) conflict with any local policies or ordinances protecting biological resources, such as a tree protection policy or ordinance.

#### 9.3.2 Impacts and Mitigation Measures

**General Impacts on Vegetation and Wildlife.** Redevelopment plan amendment-facilitated development, particularly in the Point San Pablo and southern, western, and northwestern portions of the Merged Project Area, could convert existing remaining shoreline, wetland, riparian, and upland habitats in these areas to urban uses, substantially diminishing associated habitat for plants and wildlife. Impacts could also occur if the proposed development were to impinge on buffers needed to maintain wildlife populations or affect a movement corridor that connects two or more habitats. However, all redevelopment-facilitated development must be consistent with adopted General Plan policies and zoning regulations. Existing policies, implementation programs, and regulations included in the General Plan and Zoning Ordinance and enforced during the City's development review process for individual discretionary projects were formulated and adopted to ensure that such potential vegetation and wildlife impacts remain less-than-significant. Specific provisions that were relied on by the General Plan EIR (page IV.H.12) to reduce impacts to less-than-significant levels include General Plan Policies OSC-A.3, OSC-B.1, OSC-B.2, OSC-C.1, OSC-C.2, and OSC-Q.1; and General Plan Implementation Programs OSC-A.3 and OSC-Q.1 (see descriptions under section 9.2, "Pertinent Plans and Policies," above).<sup>2</sup> Therefore, this potential impact is considered ***less-than-significant***.

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<sup>1</sup>CEQA Guidelines, Appendix G, Items IV(a) through IV(e)

<sup>2</sup>Richmond Redevelopment Areas Merger and Amendments Draft EIR, February 1999; pages 118-119.

**Mitigation for General Impacts on Vegetation and Wildlife.** No significant impact has been identified; no mitigation is required.

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**Impacts on Special-Status Plant or Animal Species.** Redevelopment plan amendment-facilitated development, particularly in the Point San Pablo and southern, western, and northwestern portions of the Merged Project Area, could also adversely affect several special-status plant or animal species that either occur or may occur in the vicinity of these areas. Adherence of individual projects to existing policies and regulations would minimize this impact, however. Specifically applicable policies and regulations include General Plan Policies OSC-A.1, OSC-A.2, OSC-A.3, OSC-B.1, OSC-B.2, OSC-C.1, and OSC-C.2; and General Plan Implementation Programs OSC-A.1 and OSC-A.3 (see descriptions under section 9.2, "Pertinent Plans and Policies," above). Therefore, this potential impact is considered ***less-than-significant***.

**Mitigation for Impacts on Special-Status Plant or Animal Species.** No significant impact has been identified; no mitigation is required.

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**Impacts on Heritage Trees.** Redevelopment plan amendment-facilitated development could adversely affect heritage trees. Potential impacts on heritage trees would include both direct loss of trees and indirect damage due to modification of the ground surface beneath the dripline, alteration of topography and drainage, or inadvertent damage during construction activities. Adherence to existing policies and regulations would minimize this impact, however. Specifically, applicable policies and regulations include General Plan Policies OSC-A.1, OSC-A.2, and OSC-A.3; and General Plan Implementation Program OSC-A.3.<sup>1</sup> Therefore, this potential impact is considered ***less-than-significant***.

**Mitigation for Impacts on Heritage Trees.** No significant impact has been identified; no mitigation is required.

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**Impacts on Sensitive Habitats Due to Use of Non-Native Plants.** The potential use of non-native plants in landscaping as part of redevelopment-facilitated development, particularly in the Point San Pablo and southern, western, and northwestern portions of the Merged Project Area, could affect the ecology of sensitive vegetation types within and adjacent to these areas, such as salt marshes, herbaceous hydrophytic vegetation, riparian areas, and native grasslands. These introduced non-native species could potentially out-compete the native plant species and thereby reduce the wildlife value of these areas because wildlife are generally not as abundant in weedy areas as in natural areas. Required adherence of individual projects to existing policies and regulations would minimize this impact, however. Specifically applicable policies and regulations include General Plan Policies OSC-B.1, OSC-B.2, and OSC-C.1; and General Plan Implementation Program OSC-A.4<sup>2</sup> (see descriptions under section 9.2, "Pertinent Plans and Policies," above). Therefore, this potential impact is considered ***less-than-significant***.

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<sup>1</sup>City of Richmond General Plan and Zoning Ordinance Updates Program EIR, August 1993; page IV.H.15, and Richmond Redevelopment Areas Merger and Amendments Draft EIR, February 1999; page 119.

<sup>2</sup>Richmond Redevelopment Areas Merger and Amendments Draft EIR, February 1999; page 120.

**Mitigation for Impacts on Sensitive Habitats Due to Use of Non-Native Plants.** No significant impact has been identified; no mitigation is required.

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**Cumulative Biological Resources Impacts.** Buildout of the Merged Project Area under the proposed redevelopment plan amendment--in combination with other future General Plan-based development elsewhere in the city and region--could contribute to cumulative biological resources impacts, including cumulative losses of special-status species and other vegetation and wildlife, as well as heritage trees. Implementation of the policies and regulations described in this EIR chapter would ensure that the potential project contribution to these cumulative impacts would be *less-than-significant*.

**Mitigation for Cumulative Biological Resources Impacts.** No significant impact has been identified; no mitigation is required.



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## 10. CULTURAL AND HISTORIC RESOURCES

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This EIR chapter describes possible impacts of the proposed redevelopment plan amendment program on cultural and historic resources, and any warranted mitigation measures.

### 10.1 SETTING

Numerous cultural resource sites, including archaeological sites and historic properties, are located throughout the City, including within or near the Merged Project Area.

#### 10.1.1 Background

The area that is now the City of Richmond provided an ideal location for long-term prehistoric settlement due to the temperate climate and the availability of food and fresh water around San Francisco Bay. Before European settlement, Alameda and Contra Costa counties were inhabited by members of the Costanoan linguistic family speaking the *Chochenyo* language. This group was further organized into six ethnic societies. The city is located in what was once part of *Xucyun* or *Huchiun* society territory.

The city also experienced development and habitation throughout three historic periods. The Spanish Period (1769-1822) marks the arrival of Spanish settlers. The new arrivals extended the mission system north, using the local natives for labor and introducing agricultural and livestock grazing in the Richmond area. The Mexican Period (1822-1848) marks the time between Mexico's independence from Spain and American possession of California. During this period, the Richmond area was part of two Mexican government grants, Rancho San Pablo and Rancho El Sobrante. The American Period (1848-present) began when the United States formally obtained California in the Treaty of Guadalupe Hidalgo. It was during the American Period that the Richmond area developed as an urban center, partly as a result of the population boom associated with the California Gold Rush and later from industrial development related to World War II.<sup>1</sup>

Both the prehistoric and historic periods are described fully in the Richmond General Plan EIR (pages IV.G.1 through IV.G.5). In addition, the historical and archaeological settings of the Point San Pablo area are described in the Final Environmental Impact Statement/Environmental Impact Report for the disposal and reuse of the Naval Fuel Depot at Point Molate (pages 3-50 through 3-58).

#### 10.1.2 Known Archaeological and Historic Resources

As a result of prehistoric and historic periods of settlement, a number of cultural resources are located throughout Richmond, including within or near the Merged Project Area. Appendix E of

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<sup>1</sup>Richmond Redevelopment Areas Merger and Amendments Draft EIR, February 1999, pages 205-206.

the Richmond General Plan EIR lists known prehistoric archaeological sites and historic properties and sites located throughout Richmond. The locations of archaeological sites are shown on confidential maps maintained by the City.

Several historic properties in Richmond are listed on the National Register of Historic Places, including the following properties within or near the Merged Project Area:

- (1) The Point Richmond Historic District, located southwestern part of the city, southwest of the project area;
- (2) The Winehaven site, located south of the Point San Pablo portion of the project area;
- (3) The East Brother Island Light Station, located on an island west of Point San Pablo;
- (4) Richmond Shipyard Number Three, located at Potrero Point in the southern part of the project area;
- (5) The New Hotel Carquinez (formerly Hotel Don), located in the existing 10-A redevelopment area portion of the project area;
- (6) The Atchison Village historic site, located off Macdonald Avenue in the central Richmond portion of the project area;
- (7) The former Ford Motor Company Assembly Building, located near Harbour Way South and Marina Way South in the southern part of the project area; and
- (8) The Ellis Landing site, located near the Santa Fe Channel in the southern part of the project area.

Other properties in Richmond may be eligible for the National Register or significant at the state or local levels.<sup>1</sup>

In addition, various locations in Richmond, including Point San Pablo, Point Pinole, Point Isabel, and various creeks and marshes, are known to contain prehistoric archaeological sites.<sup>2</sup>

## 10.2 PERTINENT PLANS AND POLICIES

The treatment of cultural resources is governed by federal, State, and local laws, policies, and guidelines. These provisions set forth specific criteria for determining whether prehistoric and historic sites or objects are significant and/or protected by law. Federal and State significance criteria generally focus on the resource's integrity and uniqueness, its relationship to similar resources, and its potential to contribute important information to scholarly research. Some

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<sup>1</sup>City of Richmond General Plan, Volume One, August 1994, Figure C-2 [Historical Resources]; and Macdonald Avenue Economic Revitalization Plan, May 2004, page 2-6.

<sup>2</sup>City of Richmond General Plan and Zoning Ordinance Updates Program EIR, August 17, 1993, Appendix E, page E-1.

resources that do not meet federal significance criteria may be considered significant under State criteria.

### **10.2.1 National Historic Preservation Act**

The National Historic Preservation Act of 1966 established the National Register of Historic Places (NRHP) as the official federal list of cultural resources that have been nominated by State offices for their historical significance at the local, state, or national level. Properties listed in the NRHP, or properties “determined eligible” for listing, must meet at least one of four NRHP-specified criteria and exhibit integrity, measured by the degree to which the original fabric has been retained and the reversibility of changes to the property.

### **10.2.2 State of California Laws and Guidelines**

(a) California Register of Historic Resources (Public Resources Code section 5020 et seq.). The State Historic Preservation Officer (SHPO) maintains the California Register of Historic Resources (CRHR). Properties listed, or formally designated eligible for listing, on the NRHP are automatically listed on the CRHR, as are State Landmarks and Points of Interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys.

(b) California Senate Bill 297 (1982). This bill addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project; and establishes the Native American Heritage Commission to resolve disputes regarding the disposition of such remains. It has been incorporated into section 15064.5(e) of the State CEQA Guidelines (see below).

(c) California Environmental Quality Act (CEQA). Section 21083.2 of CEQA requires an environmental document to address archaeological resources if a project may have a significant effect on a unique archaeological resource. Section 21083.2(g) defines a “unique archaeological resource” as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- (1) Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information;
- (2) Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
- (3) Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Sections 21083.2(b) through (f) describe mitigation for affected unique archaeological resources under CEQA. Mitigation includes preservation of the resource in-place, either through site planning or recording easements, as well as mitigation by excavation.

Section 21084.1 provides that a “substantial adverse change” in the significance of a historical resource may be considered a significant environmental effect.

(d) CEQA Guidelines. Section 15064.5 of the CEQA Guidelines defines historical resources for the purposes of CEQA. The criteria found in section 15064.5(a) are nearly identical to those for the NRHP. Archaeological and paleontological resources may also be considered historical resources under CEQA, as they can meet the criterion of yielding, or being likely to yield, information important in history or prehistory. Section 15064.5 also explicitly includes significant effects on historical resources as significant environmental effects for the purposes of analysis, and provides criteria for analysis as well as treatment of historic structures and other resources, archaeological resources, and human burials.

Section 15064.5 provides that, in general, a resource not listed on state or local registers of historic resources shall be considered by an agency to be historically significant if the resource meets the criteria for listing on the CRHR (see also CEQA section 21084.1). The section also provides standards for determining what constitutes a “substantial adverse change” that must be considered a significant impact on an historic resource. The section further states that its provisions apply to those archaeological resources that also qualify as historic resources.

Section 15126.4 of the CEQA Guidelines describes mitigation measures related to historical resources, including archaeological resources. Although the section includes provisions for mitigating effects on archaeological resources through excavation, similar to the provisions of sections 21083.2(b) through (e) of CEQA, section 15126.4(b)(3) of the CEQA Guidelines state, “public agencies should, whenever feasible, seek to avoid damaging effects on any historical resources of an archaeological nature.” Further, section 15126.4(b)(3)(A) establishes a clear preference for preservation in-place of archaeological resources, stating “[p]reservation in place is the preferred manner of mitigating impacts to archaeological sites.”

### **10.2.3 City of Richmond General Plan**

The City of Richmond General Plan contains the following policies and implementation programs that, in governing all project-related redevelopment activities and project-related development, would serve to mitigate associated adverse cultural or historic resources impacts:

- *Require new development adjacent to historical sites to incorporate design elements so as to complement the character of the surrounding historical structures. (Policy LU-A.4) (Note: Same as Policy OSC-E.4.)*
- *Preserve and enhance existing cultural and artistic artifacts and resources in the City. (Policy LU-A.5)*
- *Require archaeology reconnaissance surveys for all projects within an archaeological sensitivity area (as identified on maps on file with the Planning Department). When cultural resources are located, measures to deal with the historic resource shall be recommended by a qualified archaeologist... (Policy OSC-E.1)*
- *Protect notable historic, archaeological, and cultural sites from destruction. (Policy OSC-E.2)*
- *City will continue to utilize environmental reviews under the California Environmental Quality Act to review developments for potential impacts on archaeological and historical sites. If sites of archaeological significance are present, the procedures established in Appendix K [now section 15064.5] of the CEQA Guidelines will be applied. (Implementation Program OSC-E.1)*

- *City will continue to designate the Winehaven buildings at Point Molate, the remains of the brickworks at Brickyard Cove, the site of the last United States whaling station at Point San Pablo, and the Old Firehouse at Point Richmond as historic landmarks, and require that development at or near them respond to their character and setting. (Implementation Program OSC-E.4)*
- *City will require the preparation of an “Historic American Building Survey” for an historic structure in the event that the historical property cannot be avoided or the structure cannot be relocated in the development of a site. Such a procedure involves the precise recording of the structure through measurements, drawings, and photographs. The documentation of the resources is on standardized forms and is accurate in detail to such an extent that after demolition, the historical structure could be reconstructed from the survey data. Copies of the documents should be filed with the Richmond Museum and all appropriate agencies. (Implementation Program OSC-E.5)*

It is not expected that the policies listed above will change substantially with the anticipated update of the General Plan now underway.

#### **10.2.4 City of Richmond Zoning Ordinance**

The Richmond Zoning Ordinance (Section 15.04.520) establishes a Special Features District (SFD), an overlay district intended to promote conservation, preservation, protection, and enhancement of historic, cultural, or architecturally significant buildings or areas. The City Council may adopt development controls for this overlay district.

### **10.3 IMPACTS AND MITIGATION MEASURES**

#### **10.3.1 Significance Criteria**

Based on the CEQA Guidelines,<sup>1</sup> the proposed redevelopment plan amendment program would be considered to have a significant cultural or historic resources impact if it would:

- (a) cause a substantial adverse change in the significance of a historical resource as defined in section 15064.5;
- (b) cause a substantial adverse change in the significance of an archaeological resource as defined in section 15064.5;
- (c) directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or
- (d) disturb any human remains, including those interred outside of formal cemeteries.

As discussed in section 10.2.2 above, section 15064.5 of the CEQA Guidelines further defines criteria for determining the significance of impacts on archaeological and historic resources. Section 15064.5 provides that, in general, a resource not listed on state or local registers of

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<sup>1</sup>CEQA Guidelines, Appendix G, Items V(a) through V(d).

historical resources shall be considered by an agency to be historically significant if the resource meets the criteria for listing on the California Register of Historical Resources. The section also provides standards for determining what constitutes a "substantial adverse change" that must be considered a significant impact on an historic resource. The section further states that its provisions apply to those archaeological resources that also qualify as historic resources.

### **10.3.2 General Impact Determination Approach**

This EIR describes the general cultural and historic resource impacts anticipated as a result of the proposed project (redevelopment plan amendment) and project-facilitated development activities. Those more specific cultural resource impacts that may result from certain individual future, discretionary, site-specific developments encouraged or facilitated by the redevelopment program that cannot be reasonably determined in this program EIR would be addressed in future site-specific environmental reviews for those individual projects.

The EIR focuses on potential adverse effects on cultural resources that could result from the proposed redevelopment plan amendment program. As discussed in chapter 3, Project Description, the redevelopment program proposes to assist in rehabilitation of structures determined to be culturally or historically worthy of rehabilitation--a potential beneficial impact of the project.

### **10.3.3 Impacts and Mitigation Measures**

**Impact 10-1: Disturbance of Archaeological Resources.** Additional development and redevelopment facilitated by the project could disturb existing known or unrecorded sensitive archaeological resources in the Merged Project Area. This possibility represents a ***potentially significant impact*** (see criteria (b) and (d) in section 10.3.1, "Significance Criteria," above).

The Merged Project Area has the potential to contain buried or obscured prehistoric cultural resources. Due to the broad nature of the proposed project and associated future redevelopment activities, and the lack of extensive archaeological field data on the Merged Project Area, it is difficult to forecast the specific effects of future project-facilitated development on archaeological resources. However, as noted in section 10.1.1 (Background) above, because the Merged Project Area is located along or close to San Francisco Bay and its flat terrace conditions, there is a potential for encountering additional archaeological sites in the Merged Project Area during project-facilitated construction activities. These construction activities (e.g., grading, excavation) could disturb or destroy such archaeological resources (e.g., subsurface lithic materials, trash scatters, historic articles, etc.).

**Mitigation 10-1.** During the City's normal project-specific environmental review (Initial Study) process for all future, discretionary, public improvement and private development projects in the Merged Project Area, the City shall determine the possible presence of, and the potential impacts of the action on, archaeological resources. For projects involving substantial ground disturbance, the individual project sponsor or environmental consultant shall be required to contact the California Historical Resources Information System (CHRIS) to determine whether the particular project is located in a sensitive area. Future development projects that the CHRIS determines may be located in a sensitive area--i.e., on or adjoining an identified archaeological site--shall proceed only after the project sponsor contracts with a qualified archaeologist to conduct a determination in regard to cultural values remaining on the site and warranted mitigation measures.

To make an adequate determination in these particular instances, the archaeologist shall conduct a preliminary field inspection to (1) assess the amount and location of visible ground surface, (2) determine the nature and extent of previous impacts, and (3) assess the nature and extent of potential impacts. Such field inspection may demonstrate the need for some form of additional subsurface testing (e.g., excavation by auger, shovel, or backhoe unit), or, alternatively, the need for on-site monitoring of subsurface activities (i.e., during grading or trenching).

If a significant archaeological resource is identified through this field inspection process, the City and project proponent shall seek to avoid damaging effects to the resource. Preservation in place to maintain the relationship between the artifact(s) and the archaeological context is the preferred manner of mitigating impacts to an archaeological site. Preservation may be accomplished by:

- planning construction to avoid the archaeological site;
- incorporating the site within a park, green space, or other open space element;
- covering the site with a layer of chemically stable soil; or
- deeding the site into a permanent conservation easement.

When in-place mitigation is determined by the City to be infeasible, a *data recovery plan*, which makes provisions for adequate recovery of culturally or historically consequential information about the site, shall be prepared and adopted prior to any additional excavation being undertaken. Such studies shall be submitted to the CHRIS. If Native American artifacts are indicated, the studies shall also be submitted to the Native American Heritage Commission. Identified cultural resources shall be recorded on form DPR 422 (archaeological sites). Mitigation

**(continued)**

**Mitigation 10-1 (continued):**

measures recommended by these two groups and required by the City shall be undertaken, if necessary, prior to resumption of construction activities.

A *data recovery plan* and data recovery shall not be required if the City determines that testing or studies already completed have adequately recovered the necessary data, provided that the data have already been documented in another EIR or are available for review at the CHRIS (CEQA Guidelines section 15126.4[b]).

In the event that subsurface cultural resources are otherwise encountered during approved ground-disturbing activities for a Merged Project Area construction activity, work in the immediate vicinity shall be stopped and a qualified archaeologist retained to evaluate the finds following the procedures described above.

If human remains are found, special rules set forth in State Health and Safety Code section 7050.5 and CEQA Guidelines section 15126.4(b) shall apply.

Implementation of this measure would supplement the City's existing General Plan policies and implementation programs and would reduce this impact to a ***less-than-significant level***.

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**Impact 10-2: Destruction/Degradation of Historic Resources.** Future development projects may result in substantial adverse changes in the significance of one or more individual potentially significant historic properties in the Merged Project Area. If a historic resource were the subject of a future, site-specific development proposal, substantial adverse changes that may potentially occur include physical demolition, destruction, relocation, or alteration of one or more of these identified resources, such that the resource is "materially impaired." A historic resource is considered to be "materially impaired" when a project demolishes or materially alters the physical characteristics that justify the determination of its significance (CEQA Guidelines section 15064.5[b]). Such an adverse change to a CEQA-defined historic resource would constitute a ***potentially significant impact*** (see criteria (a), (b), and (d) in section 10.3.1, "Significance Criteria," above).

**Mitigation 10-2.** Generally, for any future discretionary action within the Merged Project Area that the City determines through the CEQA-required Initial Study review process may cause a “substantial adverse change” to an identified historic resource, the City and applicant shall incorporate measures that would seek to improve the affected resource in accordance with either of the following publications:

- Secretary of Interior's *Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings*; or
- Secretary of Interior's *Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings*.

Successful incorporation of these measures would supplement the City's existing General Plan policies and implementation programs and would reduce the impact to a **less-than-significant level** (CEQA Guidelines section 15126.4[b]). This mitigation shall be made enforceable by its incorporation into the redevelopment plan amendment as a City-adopted requirement to be implemented through subsequent development-specific permits, conditions, agreements, or other measures, pursuant to CEQA Guidelines section 15064.5(b)(3-5).

Although not anticipated under the proposed redevelopment program, for any future discretionary action that would result in the demolition of an identified historic resource, or otherwise cause the significance of the resource to be “materially impaired,” the City shall determine through the Initial Study process that the resulting potential for a significant impact is unavoidable, thereby requiring a project-specific EIR (CEQA Guidelines section 15064.5[a] and [b]).

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**Impact 10-3: Destruction/Degradation of Paleontological Resources.**

Additional development and redevelopment facilitated by the project could disturb existing known or unrecorded paleontological resources in the Merged Project Area. This possibility represents a **potentially significant impact** (see criterion (c) in section 10.3.1, "Significance Criteria," above).

The Merged Project Area may contain paleontological resources. The potential for fossils to be found would be a concern during excavation for project-facilitated development in the Merged Project Area.

**Mitigation 10-3.** During the City's normal project-specific environmental review (Initial Study) process for all future, discretionary public improvement and private development projects in the Merged Project Area, the City shall determine the possible presence of, and the potential impacts of the action on, paleontological resources. For projects involving substantial ground disturbance in an area where the City has determined the possible presence of paleontological resources, the City shall require individual project applicants to carry out the following measures:

(1) *Education Program.* Project applicants shall implement a program that includes the following elements:

- Resource identification training procedures for construction personnel;
- Spot-checks by a qualified paleontological monitor of all excavations deeper than seven feet below ground surface; and
- Procedures for reporting discoveries and their geologic content.

(2) *Procedures for Resources Encountered.* If subsurface paleontological resources are encountered, excavation shall halt in the vicinity of the resources and the project paleontologist shall evaluate the resource and its stratigraphic context. The monitor shall be empowered to temporarily halt or redirect construction activities to ensure avoidance of adverse impacts on paleontological resources. During monitoring, if potentially significant paleontological resources are found, "standard" samples shall be collected and processed by a qualified paleontologist to recover micro vertebrate fossils. If significant fossils are found and collected, they shall be prepared to a reasonable point of identification. Excess sediment or matrix shall be removed from the specimens to reduce the bulk and cost of storage. Itemized catalogs of material collected and identified shall be provided to the museum repository with the specimens. Significant fossils collected during this work, along with the itemized inventory of these specimens, shall be deposited in a museum repository for permanent curation and storage. A report documenting the results of the monitoring and salvage activities, and the significance of the fossils, if any, shall be prepared. The report and inventory, when submitted to the lead agency, shall signify the completion of the program to mitigate impacts on paleontological resources.

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

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**Cumulative Cultural Resources Impacts.** Buildout in the Merged Project Area under the proposed redevelopment plan amendment--in combination with other future General Plan-based development elsewhere in the city and region--could contribute to cumulative losses in archaeological or historic resources. Implementation of the policies and regulations described

in this EIR chapter would ensure that the potential project contribution to these cumulative impacts would be ***less-than-significant***.

**Mitigation for Cumulative Cultural Resources Impacts.** No significant impact has been identified; no mitigation is required.



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## 11. GEOLOGY AND SOILS

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This chapter describes existing conditions and the potential impacts of the project related to soil and geologic conditions, and identifies mitigations for potentially significant effects.

### 11.1 SETTING

#### 11.1.1 Geology and Topography

The topography of Richmond is generally characterized by a large flat area (the Bay Plain) and three southeast-northwest trending ridges. Central Richmond and most of southern and western Richmond are located mainly in the Bay Plain, where the city's population is concentrated. The Hilltop area is characterized by a series of low ridges and shallow swales. The Point San Pablo area is located in the San Pablo-Potrero Hills ridge area, which is the most notable ridgeline in Richmond. The ridge extends in a northwest direction along the San Pablo Peninsula from the Santa Fe Channel to Point San Pablo, with elevations rising from sea level to over 400 feet.

Richmond is generally underlain by a complex assemblage of "Basement Rocks" known as the Franciscan Formation. The Franciscan Formation consists of sedimentary and volcanic rocks that accumulated to a thickness of more than 50,000 feet. In the Hilltop area, the Orinda Formation is the underlying rock material. This formation consists of materials ranging from partially consolidated (partially rocklike) claystone, siltstone, sandstone, and conglomerates to unconsolidated clay, silt, sand, and gravel. A layer of tuff (compacted volcanic fragments) is present within the Orinda Formation.<sup>1</sup>

#### 11.1.2 Soils

The U.S. Soil Conservation Service has identified 37 individual soil types in the Richmond area, grouped into 22 different soil series. The primary soil series, in descending order of coverage, are Millsholm, Terra, Clear Lake, Los Osos, Urban Land, Reyes, Los Gatos, Diablo, and Conejo.<sup>2</sup>

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<sup>1</sup>Richmond Redevelopment Areas Merger and Amendments Draft EIR, page 65; Volume Two of the Richmond General Plan, Technical Appendix, pages B-3 through B-4; and A-N West, Inc., Consulting Engineers, Richmond General Plan Update Issues & Opportunities Paper 3: Natural Hazards, Draft, prepared for Moore Iocofano Goltsman, Inc., May 2006, pages 5-10.

<sup>2</sup>Richmond Redevelopment Areas Merger and Amendments Draft EIR, page 68.

Soils such as Los Osos and Clear Lake series that are found in both in the Bay Plain and in the hills of Richmond have a high clay content and tend to expand when wet and shrink upon drying. This expansive property renders these soils of poor engineering quality.<sup>1</sup>

### **11.1.3 Seismicity and Seismic Hazards**

(a) Earthquake Faults. The Merged Project Area is located in a region of high seismicity. The Bay Area in general is characterized by large numbers of active strike-slip faults, and has been the site of numerous moderate and large magnitude earthquakes. The Merged Project Area is therefore subject to strong ground motion generated on several active regional faults, most notably the Hayward, Calaveras, San Andreas, San Gregorio, Rodgers Creek, Green Valley, and Concord Faults. These faults accommodate transform motion along the Pacific-North American plate boundary through the San Francisco Bay region.

The Hayward Fault runs approximately along the west ridge of Wildcat Canyon and extends in a southeast-northwest direction through Richmond, bisecting the northern part of the Merged Project Area just west of the Hilltop area. The Wildcat Fault, considered an inactive branch of the Hayward Fault, runs approximately parallel and close to the Hayward Fault. The Hayward Fault is generally regarded as having the highest probability of producing the next large magnitude earthquake in the Bay Area, based on the amount of elapsed time since the most recent rupture. The Hayward Fault has produced two recorded major earthquakes: a magnitude-6.5 earthquake on June 10, 1936, and a magnitude-6.9 earthquake on October 21, 1868. The northern part of the Hayward Fault is capable of producing a large magnitude earthquake in the Merged Project Area.

The San Andreas Fault, located 15 miles west of Richmond, could also cause strong ground shaking in the Merged Project Area. The recurrence interval for an earthquake with a magnitude of 8.3 on the San Andreas Fault ranges from 100 to 1,000 years.

In addition to the Wildcat Fault, other inactive faults in Richmond include the San Pablo Fault, the Franklin Fault, and the Pinole Fault. The San Pablo Fault is thought to traverse the southwestern part of Richmond, transecting the northern side of the San Pablo Peninsula.<sup>2</sup>

(b) Potential Earthquake Hazards. Four major types of hazards may be associated with earthquakes in the Merged Project Area: (1) fault rupture, (2) ground shaking, (3) ground failure, and (4) earthquake-induced inundation from dam failure, tsunamis, or seiches.

(1) *Fault Rupture*. Ground surface rupture, or fault rupture, is associated with earthquakes of magnitude 5.5 and greater. Projects within earthquake fault zones require geologic evaluation to determine if a potential hazard from any fault, whether previously recognized or not, exists. Policies and criteria of the State Mining and Geology Board state that no structure may be

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<sup>1</sup>City of Richmond General Plan and Zoning Ordinance Updates Draft Program EIR, pages IV.I.13 through IV.I.14.

<sup>2</sup>Richmond Redevelopment Areas Merger and Amendments Draft EIR, pages 65-66; Volume Two of the Richmond General Plan, Technical Appendix, pages B-8 through B-9; and A-N West, Inc., Consulting Engineers, Richmond General Plan Update Issues & Opportunities Paper 3: Natural Hazards, Draft, prepared for Moore Iocofano Goltsman, Inc., May 2006, pages 19-21.

placed across the trace of an active fault. The area within 50 feet of an active fault is presumed to be underlain by active branches of the fault unless proven otherwise.<sup>1</sup>

Fault rupture is a potential hazard in the Merged Project Area due to the close proximity of the Hayward Fault, which extends through the northern part of the Merged Project Area. Earthquake fault zone maps maintained by the California Geological Survey in accordance with the Alquist-Priolo Earthquake Fault Zoning Act (Sections 2621-2630 of the California Public Resources Code) show a fault zone extending through Richmond in the general vicinity of the Merged Project Area.<sup>2</sup>

(2) *Ground Shaking.* The maximum expected earthquake on the Hayward Fault is a magnitude 6.9. An earthquake of this magnitude on the Hayward Fault will produce strong vibratory ground accelerations within the Merged Project Area. These strong ground motions could damage structures in the Merged Project Area, even if all applicable building regulations are followed.

Based on shaking amplification maps developed by ABAG,<sup>3</sup> the susceptibility of the Merged Project Area to ground shaking varies widely. The Point San Pablo area is generally designated as having potential for “strong” to “violent” shaking during an earthquake on the Hayward Fault. Central, western, and southern Richmond have areas designated as having “very strong,” “violent” and “very violent” shaking potential. Northwestern Richmond has the potential for “violent” and “very violent” shaking. The Hilltop area is shown as having the potential for “violent” ground shaking.

The entire Bay Area is designated by the Uniform Building Code as being within Seismic Zone 4, a high-severity zone where probable damage from nearby earthquakes would be major.<sup>4</sup>

The extent of hazards from seismic shaking depends on the specifics of the earthquake and the resistance of individual structures. Older (pre-1974) masonry structures are typically less resistant to seismic shaking damage than are newer wood or steel-framed structures built in accordance with more recent building codes. Similarly, structures not adequately bolted to their foundations have a greater risk of damage than adequately secured structures. No seismic analysis of individual structures has been undertaken as part of this review.

(3) *Ground Failure.* Seismic shaking can also result in ground failure through liquefaction, lateral spreading, ground lurching, and differential settlement. Liquefaction occurs when granular sediments lose cohesion due to vibration and are transformed into a temporary liquid state. This phenomenon typically occurs in saturated, unconsolidated deposits. Lateral

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<sup>1</sup>A-N West, Inc., Consulting Engineers, Richmond General Plan Update Issues & Opportunities Paper 3: Natural Hazards, Draft, prepared for Moore locofano Goltsman, Inc., May 2006, page 22.

<sup>2</sup>California Geological Survey, Index to Alquist-Priolo Earthquake Fault Zone Maps, Figure 4B, available at [http://www.consrv.ca.gov/cgs/rghm/ap/Map\\_index/Pages/F4B.aspx#6](http://www.consrv.ca.gov/cgs/rghm/ap/Map_index/Pages/F4B.aspx#6); and A-N West, Inc., Consulting Engineers, Richmond General Plan Update Issues & Opportunities Paper 3: Natural Hazards, Draft, prepared for Moore locofano Goltsman, Inc., May 2006, page 20.

<sup>3</sup>Association of Bay Area Governments, On Shaky Ground, Publication # P95002EQK-SC-13, April 1995, as depicted on map available at <http://www.abag.ca.gov/cgi-bin/pickmapx.pl>.

<sup>4</sup>Uniform Building Code, 1997, Volume 2.

spreading is the horizontal movement of material adjacent to a steep, unsupported face (i.e., stream bank, cut face, etc.) during liquefaction of underlying deposits. Ground lurching describes the downslope movement of material on a steep slope that does not involve a discrete plane of movement (as occurs in a landslide). It is analogous to rapid soil creep, and can affect large areas on a hillslope during a strong earthquake.<sup>1</sup>

Portions of central, southern, and northwestern Richmond, including portions of the Merged Project Area, may be susceptible to liquefaction. The Point San Pablo and Hilltop portions of the Merged Project Area are less likely to be subject to liquefaction.<sup>2</sup> However, the potential for liquefaction can depend on specific, highly localized underlying soil conditions. Determination of liquefaction, differential settlement, and lateral spreading potential in the Merged Project Area would require site-specific geotechnical studies.

(4) *Earthquake-Induced Inundation.* Much of southern, central, and western Richmond, including portions of the Merged Project Area, could also be subject to flooding from storm waves at high tides or from tsunamis (earthquake-generated ocean waves). This issue is discussed in more detail in chapter 12, Drainage and Water Quality, of this EIR.

#### **11.1.4 Landslide Hazards**

Landsliding is a form of ground failure involving a relatively rapid downslope movement of a dry mass of soil, rock, and rock debris. Landslides can cause damage to upslope or downslope structures, roads, utilities, and drainage systems. In the vicinity of the Merged Project Area, landslides have occurred in the Hilltop area and in the San Pablo-Potrero Hills range in the vicinity of Point San Pablo and southern Richmond.<sup>3</sup>

#### **11.1.5 Mineral Resources**

The California Office of Surface Mining has designated three sites within the City as valuable Mineral Resource Zones (MRZ-2) due to the presence of regionally significant quantities of aggregate materials (sand, gravel, or stone). The three sites are located in the San Pablo Peninsula and Potrero Point areas. One of the sites (Sector W-1) is located at the tip of the San Pablo Peninsula within the Merged Project Area. The other two sites are recently closed quarries located outside the Merged Project Area; one of the sites (Sector W-2) is located one-quarter mile north of the Richmond-San Rafael Bridge toll plaza, and the other (Section W-3) is located on the eastern slope of the San Pablo-Potrero Hills ridge, immediately west of the Merged Project Area boundary near Canal Boulevard.<sup>4</sup>

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<sup>1</sup>Richmond Redevelopment Areas Merger and Amendments Draft EIR, pages 66-67.

<sup>2</sup>A-N West, Inc., Consulting Engineers, Richmond General Plan Update Issues & Opportunities Paper 3: Natural Hazards, Draft, prepared for Moore Iocofano Goltsman, Inc., May 2006, pages 27-29.

<sup>3</sup>Volume Two of the Richmond General Plan, Technical Appendix, page B-11; Richmond Redevelopment Areas Merger and Amendments Draft EIR, page 75; and A-N West, Inc., Consulting Engineers, Richmond General Plan Update Issues & Opportunities Paper 3: Natural Hazards, Draft, prepared for Moore Iocofano Goltsman, Inc., May 2006, pages 15-16.

<sup>4</sup>City of Richmond General Plan and Zoning Ordinance Updates Draft Program EIR, page IV.1.7; and A-N West, Inc., Consulting Engineers, Richmond General Plan Update Issues & Opportunities Paper 3: Natural Hazards, Draft, prepared for Moore Iocofano Goltsman, Inc., May 2006, pages 11-15.

## 11.2 PERTINENT PLANS AND POLICIES

### 11.2.1 City of Richmond General Plan

(a) Pertinent Policies and Implementation Programs. The City of Richmond General Plan contains policies and implementation programs that, in governing all project-related redevelopment activities and project-related development, would serve to mitigate associated adverse geologic and soils impacts:

- *Protect the mineral resources which have been classified and/or designated mineral resources from urban encroachment and development incompatible with mining. (Policy OSC-D.4)*
- *Limit construction in areas adjacent to designated mineral resource areas to those uses that will not be impacted by significant noise, dust, traffic, or visual impacts of mining operations. (Policy OSC-D.8)*
- *Require as a minimum for all hillside construction the recommended guidelines listed in Table OSC-1, recommended Guidelines for Geotechnical Investigations, Technical Appendix for the Richmond General Plan. (Policy OSC-N.1)*
- *Conduct site-specific geotechnical studies on a case-by-case basis on projects proposed to be built on or adjacent to inactive bedrock faults. These areas may represent geologic anomalies that could contribute to slope instability or other problems... (Policy OSC-N.2)*
- *City will require an Environmental Impact Report (EIR) to be prepared for proposed quarry operations. Areas of potential environmental impacts to be discussed in the EIR shall include but not be limited to traffic (particularly access roads), air quality, and visual impacts. (Implementation Program OSC-D.1)*
- *Subject to the following paragraph, the City will not approve development on slopes greater than 30 percent until enactment of the City's hillside ordinance, which ordinance shall be prepared in consultation with Contra Costa County, the East Bay Regional Park District, and other cognizant agencies. (Implementation Program OSC-F.2)*

*For an interim period until such time as the hillside ordinance is prepared and enacted, the City will not approve development on slopes greater than 30 percent unless the City finds that (1) engineering recommendations satisfactory to the City have been submitted and included as conditions of project approval such that the development will not have a significant adverse effect on public health and safety; (2) the project removes no more than 15 percent of the mature trees on slopes greater than 30 percent; (3) the project will not unreasonably interfere with views or privacy; and (4) the project complies with the Objectives and Principles Regulating Hill Area Development adopted by Resolution 8620 of the Richmond City Council on April 19, 1965. The interim period for consideration by the Richmond City Council of the hillside ordinance shall not exceed one year; provided that the City may extend this one-year period by 6-month extensions as necessary based upon a finding by the City Council that, in spite of good faith efforts, the ordinance is not yet ready for the Council's consideration.*

- *City will, through the Zoning Ordinance or the Development Review Organization, require development on slopes of 15 to 30 percent to control erosion and runoff and to preserve the natural topography as much as possible. Cuts and fills and removal of vegetation should be minimized. In addition, the City will require extreme caution in construction on slopes in excess of 30 percent except for such minimal development as hiking trails and the like. (Implementation Program OSC-I.4)*
- *City will require a revegetation plan as part of all grading permits. Destroyed or damaged vegetation on slopes or at quarries shall be replaced. Revegetation plans will require the use of native plant species for landscaping purposes wherever possible. Species...which invade plant communities, should not be used...Removal of vegetation in all new development should be minimized. In particular, the cutting of mature native woodland trees, especially on unsuitable slopes and in creek beds, will be controlled. (Implementation Program OSC-I.5)*
- *City will require grading permits for grading in all areas of the city. An erosion control plan and revegetation plan will be required as part of all grading permits, except where specifically exempted by the Public Works Department. In addition, runoff should be controlled and released safely downstream. (Implementation Program OSC-I.6)*
- *City will require project applicants to minimize construction erosion impacts by developing and implementing soil erosion plans as part of the site-specific environmental review process. These plans would meet the standards set forth in ABAG's Manual of Standards for Erosion and Sedimentation Control Measures (1981). The following guidelines should be incorporated into these plans:*
  - 1) *Remove surface cover from soil only when construction is ready to begin. Uncover soils only at the building site. Leave areas not proposed for development undisturbed.*
  - 2) *Conduct grading only during the summer dry season (May through September).*
  - 3) *Cover stockpiles of soil. (Implementation Program OSC-I.7)*
- *City will require soils tests for all new development in areas with known soils problems. All those applying for building permits will be informed of potential problems when applying for the permit. (Implementation Program OSC-N.1)*
- *City will require geotechnical tests for all new development in areas adjacent to inactive bedrock faults. All those applying for specific building permits shall inform the City of potential problems when applying for the permit. (Implementation Program OSC-N.2)*
- *Continue to investigate the potential of seismic and geologic hazards as part of the environmental review process, and maintain this information for public records. (Policy SF-A.5)*
- *Require a site investigation for any major or important structures to determine the degree of seismic and geologic hazards that can be expected for the particular structure (i.e., unreinforced masonry), and have the investigation reviewed by a technically qualified professional. (Policy SF-A.7)*
- *Identify potentially hazardous buildings that are unreinforced masonry (URM), and require that they be strengthened against earthquakes. (Policy SF-A.15)*

- *Maintain a joint Disaster Preparedness Program with other West County cities, utility companies, and the East Bay Regional Park District which will allow the agencies to pool their resources and better coordinate a comprehensive program of disaster preparedness. (Policy SF-D.2)*
- *City will require a detailed structural investigation of municipal buildings by a structural engineer and make funds available for modifications to those buildings, as budget constraints permit. (Implementation Program SF-A.1)*
- *City will require post-earthquake inspection of public and private buildings for structural integrity. (Implementation Program SF-A.2)*
- *City will appraise individual development projects for the potential of significant geologic, seismic, soils, and hydrologic problems. Study and reporting will be made of seismic safety considerations in all Environmental Impact Reports (EIRs). Those sections of an EIR dealing with geology should be reviewed by an engineering geologist prior to being presented to a designated city board or commission. (Implementation Program SF-A.5)*
- *City will encourage developers to use alternative building materials that are designed for geologically sensitive areas. (Implementation Program SF-A.6)*
- *City will require an evaluation of landslide potential by a civil engineer or geologist for construction within areas designated as high or medium risk. (Implementation Program SF-A.7)*
- *City will incorporate the following measures into either already existing ordinances (e.g., subdivision ordinance) or proposed ordinances (e.g., hillside ordinance):*
  - (a) Minimize the removal of the natural vegetative cover and revegetate quickly.*
  - (b) All major drainages should be kept clear of debris.*
  - (c) Where possible, direct drainage away from unstable slopes and at-capacity drainages.*
  - (d) Immediately inspect landslides to mitigate any flooding hazard that might result from blockage of drainages.*
  - (e) Set back structures 75 feet from all mapped landslides or the major break-in-slope, whichever is closer to the proposed development site. (Setbacks are not necessary if structural improvements, such as grading or terracing, or structural reinforcements, such as retaining walls, are included in development plans and reviewed by a qualified geotechnical consultant.)*
  - (f) The soils engineer should be notified at least four working days prior to any site clearing or grading operation on the property in order to observe grading and removal of vegetation.*
  - (g) A geologist or soils engineer should be present during site preparation and construction to evaluate the quality of work, verify compliance with recommendations, and suggest changes in procedures, if necessary. (Implementation Program SF-A.11)*
- *City will require soil investigations by a geotechnical engineer or an engineering geologist registered in the State of California as part of the site-specific environmental review process for any proposed development on soils with moderate to high shrink-swell potential as defined by the Contra Costa County Soil Survey (Soil Conservation Service, 1977). Review development on soils with moderate to high shrink-swell potential in terms of site grading, foundation design, and construction in order to avoid site and structural damage resulting from these soil conditions. (Implementation Program SF-A.12)*

- *City will continue to implement and update its Disaster Preparedness Program and Multi-Functional Hazard Plan.* (Implementation Program SF-D.1)

It is not expected that the policies listed above will change substantially with the update of the General Plan currently underway.

(b) Area-Specific Guidelines. The *Open Space and Conservation Element* of the General Plan also contains the following relevant “area-specific guidelines”:

North Shoreline:

- *Require special geotechnical studies and construction techniques in areas of potential seismic or geological hazards (e.g., Alquist-Priolo Special Study Zone, high liquefaction, and reclaimed wetland areas).* (Open Space and Conservation Element, North Shoreline Guideline 6)

### **11.2.2 City of Richmond Grading Ordinance**

The City’s Excavation, Grading and Earthwork Construction Ordinance Number 19-97 establishes the minimum standards and requirements for grading, excavation, and fill, and identifies procedures by which the standards and requirements are enforced. The provisions of the ordinance are supplementary and in addition to the zoning and subdivision regulations of the City. The ordinance is implemented through the City’s permitting process, which requires adherence to grading and seismic safety requirements of the Uniform Building Code.<sup>1</sup>

## **11.3 IMPACTS AND MITIGATION MEASURES**

### **11.3.1 Significance Criteria**

Based on the CEQA Guidelines,<sup>2</sup> the proposed project would have a significant adverse impact on soil or geologic conditions if it would:

- (a) expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - (1) rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault (refer to Division of Mines and Geology Special Publication 42);
  - (2) strong seismic ground shaking;
  - (3) seismic-related ground failure, including liquefaction; or

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<sup>1</sup>Final EIS/EIR for the Disposal and Reuse of Fleet and Industrial Supply Center, Naval Fuel Depot Point Molate, February 2002, page 3-79.

<sup>2</sup>CEQA Guidelines, Appendix G, Items VI(a) through VI(d), X(a), and X(b).

- (4) landslides;
- (b) result in substantial soil erosion or the loss of topsoil;
- (c) be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse;
- (d) be located on expansive soil as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property;
- (e) result in the loss of availability of a known mineral resources that would be of value to the region and the residents of the state; or
- (f) result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

### **11.3.2 Future Study and Subsequent Mitigation**

Geotechnical/geologic mitigation requirements identified in this chapter include completion of additional, more detailed studies to address specific concerns as individual, site-specific project applications are submitted. Regarding any mitigation recommendations that have been described in this EIR chapter that require future additional determinations, the CEQA Guidelines and recent court decisions indicate that mitigation measures must operate in some way to alter the significant impacts of the project. The EIR mitigation measures must be capable of ensuring that the project would be implemented in a manner that alters any potential soil and geologic impacts of the project. There is substantial historic information to support the conclusion that the specific subsequent geotechnical/geologic investigations, inspections, and specific formulations identified in this EIR would adequately mitigate related impacts to less-than-significant levels. The City routinely requires such geotechnical/geologic investigations and specifications at phases of development review that follow EIR certification.

Under the City's redevelopment plan, grading permit, and building permit provisions, requirements, and regulations, a project cannot be given final approval without reasonable indication of project compliance with these geotechnical/geologic requirements. These requirements and related City inspection and verification procedures prior to project occupancy provide reasonable assurances that the project would incorporate the design and engineering refinements necessary to reduce the impact to a less-than-significant level by either avoiding identified soil and geologic impact areas altogether (i.e., basic project design changes), or by rectifying the impact through conventional engineering and construction procedures (e.g., backfilling) identified throughout the post-EIR investigation and monitoring process.

### **11.3.3 Impacts and Mitigation Measures**

*In the following discussion, specific existing policies, programs, and regulations from the Richmond General Plan are cited as having a mitigating effect on the potential impact. Unless otherwise noted, the policies and regulations cited include those that were relied on by the Richmond General Plan EIR to mitigate potential impacts (either by identifying the mitigating policies contained in the General Plan or by requiring additional policies to be added to the*

*General Plan*). The page number of the *General Plan EIR* where mitigating policies are identified or required through mitigation is cross-referenced.

**Earthquake Hazards.** The proposed project would facilitate new development that could expose additional population and new structures to fault rupture, ground shaking, and/or liquefaction resulting from a major earthquake in the Bay Area. The northern part of the Merged Project Area may be subject to fault rupture, and the Merged Project Area as a whole may be subject to ground shaking ranging from “strong” to “very violent.” Portions of the Merged Project Area, particularly in central, southern, and northwestern Richmond, may also be susceptible to liquefaction.

Shaking or resulting ground failure could damage or destroy older structures (e.g., unreinforced masonry) or improperly designed or constructed new structures and infrastructure. Some structures in the Merged Project Area may be at higher risk of structural failure because of age or type of construction. These structures may include (1) those constructed prior to the adoption and enforcement of local codes requiring earthquake-resistant building design, (2) those constructed of unreinforced masonry (URM), and (3) those that exhibit any of the following characteristics: exterior parapets or ornamentation that may fall off; exterior walls that are not anchored to the floors, roof, or foundation; sheeting on roofs or floors incapable of withstanding lateral loads; and non-ductile frame construction.

Development that may occur as a result of the proposed project would be subject to existing policies, programs, and regulations of the Richmond General Plan that would be enforced at the time that individual development projects are proposed. Implementation of the policies that have already been relied on by the General Plan EIR (page IV.I.8) would mitigate this potential impact (see section 11.2, “Pertinent Plans and Policies,” above). These include Policies SF-A.5, SF-A.7, and SF-A.15; Implementation Programs SF-A.1, SF-A.2, SF-A.5 and SF-A.6.<sup>1</sup> Because the project would not allow any development that could not already be undertaken under the existing General Plan, the existing policies and regulations cited above would mitigate the effects of development allowed under the General Plan. In addition, as noted in chapter 3, Project Description, the redevelopment plan amendment program proposes to assist with the abatement of earthquake hazards and seismic strengthening of structures in the Merged Project Area. Therefore, this impact would be considered ***less-than-significant***.

**Mitigation for Earthquake Hazards.** No significant impact has been identified; no mitigation is required.

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**Landslide Hazards.** The project would facilitate new development that could be damaged by landslides triggered by heavy rain or strong ground shaking from an earthquake. Areas of active or dormant landslides are most likely to be found in the vicinity of Point San Pablo, Hilltop, and portions of southern Richmond. Development or redevelopment could reactivate old landslides or destabilize other areas.

Development that may occur as a result of the proposed project would be subject to existing policies, programs, and regulations of the Richmond General Plan. The General Plan EIR (page IV.I.10) identified the following provisions as mitigating potential landslide effects associated with General Plan buildout (see section 11.2, “Pertinent Plans and Policies,” above):

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<sup>1</sup>Richmond Redevelopment Areas Merger and Amendments Draft EIR, page 74.

General Plan Policies OSC-N.1 and OSC-N.2; Implementation Programs OSC-N.1, OSC-N.2, SF-A.7, and SF.A-11. In addition, the General Plan EIR identified Mitigation Measure Geology-2, which required Implementation Program SF-A.11 to be added to the General Plan. This program requires that future development activities minimize the removal of the natural vegetative cover and revegetate quickly, keep all major drainages clear of debris, direct drainage away from unstable slopes and at-capacity drainages, inspect landslides to mitigate any flooding hazard from blockage of drainages, and set back structures 75 feet from landslides.<sup>1</sup> Because implementation of existing policies and regulations has already been required to mitigate the potential effects of General Plan buildout, potential impacts associated with future development in the Merged Project Area are considered ***less-than-significant***.

**Mitigation for Landslide Hazards.** No significant impact has been identified; no mitigation is required.

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**Impacts from Expansive Soils.** Expansive soils with high shrink-swell potential are found in various locations in the Merged Project Area. The project would facilitate new development that could be damaged by these soils. Foundations of buildings that would be constructed as a result of implementation of the proposed project would be subject to cracking and movement when constructed over expansive soils.

Development that would occur as a result of the proposed project would be subject to policies and standards included in the Richmond General Plan that have already been relied on to reduce potential impacts associated with General Plan buildout to less-than-significant levels. (See Mitigation Measure Geology-4 in the General Plan EIR, page IV.I.14.) The General Plan includes Implementation Program SF-A.12 (required as Mitigation Measure Geology-4 by the General Plan EIR). This program requires that, for all new development on soils with moderate to high shrink-swell potential as defined by the Contra Costa County Soil Survey, project-specific environmental review include soil investigations by a geotechnical engineer or an engineering geologist registered with the State of California. Review of site grading and foundation design is also required.<sup>2</sup> Because implementation of existing policies and regulations has already been required to mitigate the potential effects of General Plan buildout, potential impacts associated with future development in the Merged Project Area are considered ***less-than-significant***.

**Mitigation for Impacts from Expansive Soils.** No significant impact has been identified; no mitigation is required.

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**Impacts on Mineral Resources.** The proposed project would facilitate new development that could restrict mineral extraction in State-designated mineral resource areas within or adjoining the Point San Pablo and southern Richmond portions of the Merged Project Area.

Development that may occur as a result of the proposed project would be subject to existing policies, programs, and regulations of the Richmond General Plan. The General Plan EIR (page IV.I.15) relied on the following provisions to reduce mineral resources impacts associated with General Plan buildout to less-than-significant levels (see section 11.2, "Pertinent Plans and

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<sup>1</sup>Richmond Redevelopment Areas Merger and Amendments Draft EIR, page 75.

<sup>2</sup>Richmond Redevelopment Areas Merger and Amendments Draft EIR, page 76.

Policies,” above): General Plan Policies OSC-D.4 and OSC-D.8; Implementation Program OSC-D.1. Because implementation of existing policies has already been required to mitigate the potential effects of General Plan buildout, potential impacts associated with future development in the Merged Project Area are considered ***less-than-significant***.

**Mitigation for Impacts on Mineral Resources.** No significant impact has been identified; no mitigation is required.

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**Cumulative Geology and Soils Impacts.** Buildout of the Merged Project Area under the proposed redevelopment plan amendment--in combination with other future General Plan-based development elsewhere in the city and region--would cumulatively increase the number of people and structures subject to geologic hazards and would contribute to cumulative losses in mineral resources. Implementation of the policies and regulations described in this EIR chapter would ensure that the potential project contribution to these cumulative impacts would be ***less-than-significant***.

**Mitigation for Cumulative Geology and Soils Impacts.** No significant impact has been identified; no mitigation is required.

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## 12. DRAINAGE AND WATER QUALITY

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This chapter describes (1) existing drainage and water quality characteristics within the Merged Project Area, (2) the potential impacts of anticipated project-facilitated development and improvement activities on these conditions, and (3) any measures necessary to mitigate identified significant impacts.

### 12.1 SETTING

#### 12.1.1 Citywide Drainage and Hydrology

The City of Richmond lies within the overall regional drainage area of San Francisco Bay. Average annual rainfall in the area is about 25 inches. The city is drained by a series of creeks that generally flow west from the hills to the bay. These creeks, from north to south, include Garrity Creek, Rheem Creek, San Pablo Creek, Wildcat Creek, and Cerrito Creek. Short segments of Rheem, San Pablo, and Wildcat creeks flow east-west through the Merged Project Area, in the railroad track area west of Rumrill Boulevard and Grant Road. In general, drainage through urban and developed areas of Richmond is regulated through engineered storm drainage facilities, and large portions of the urban creeks have been channelized for flood control.<sup>1</sup> In less developed areas, such as in the Point San Pablo vicinity, runoff flows overland into a system of natural channels and ravines.<sup>2</sup>

#### 12.1.2 Flooding and Flood-Prone Areas

(a) Flooding During Storms. Areas of Richmond that are subject to flooding during the 100-year storm (i.e., a storm with a likelihood of occurring once every 100 years) have been identified by the Federal Emergency Management Agency (FEMA) on FEMA Flood Insurance Rate Maps. Based on these maps, the Richmond General Plan indicates that the southeastern corner of the Merged Project Area, along with areas south of Point Pinole, are within flood zone A and are subject to 100-year flooding. Other areas in central and western Richmond (in the vicinity of Richmond Parkway/Ohio Avenue, 23<sup>rd</sup> Street/Cutting Boulevard, 23<sup>rd</sup> Street/Macdonald Avenue, and Nicholl Park) are within flood zone B; this zone applies to areas “between limits of the 100-year flood and 500-year flood,” or “subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile,” or “protected by levees from the base flood.” Most of the rest of Richmond is within flood zone C, which applies to “areas of minimal flooding.”<sup>3</sup>

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<sup>1</sup>Richmond Redevelopment Areas Merger and Amendments Draft EIR, February 1999, page 79.

<sup>2</sup>Final EIS/EIR for the Disposal and Reuse of Fleet and Industrial Supply Center, Naval Fuel Depot Point Molate, February 2002, page 3-68.

<sup>3</sup>Richmond General Plan, Figure B-8, Flood Zones (revision: May 1996).

According to a background report prepared for the update of the Richmond General Plan now underway, portions of the Bay Plain close to the bay suffer shallow ponding when heavy rains coincide with high tides in the bay. The report indicates that coastal areas south of Point Pinole and west of Castro Street, along with sections of coastal area from Marina Bay to Point Isabel, are subject to inundation from the 100-year flood.<sup>1</sup>

(b) Sea Level Rise. Rising sea levels in San Francisco Bay pose a threat of future flooding on bayside lands, such as Point San Pablo, as well as lands next to lowland creeks and rivers. Predictions of sea level rise due to global warming vary widely. A middle-range estimate for San Francisco Bay is an average of about four feet in the next century.<sup>2</sup> (See additional discussion in chapter 16, Climate Change, of this EIR.)

(c) Tsunamis. Much of southern, central, and western Richmond, including portions of the Merged Project Area, could also be subject to flooding from storm waves at high tides or from tsunamis (earthquake-generated ocean waves).<sup>3</sup> Studies at Point Molate indicate that structures below about 10 feet National Geodetic Vertical Datum (NGVD) could be affected by storm waves at high tides, and that waterfront areas could be subject to tsunami runups of up to 3.5 feet above tidal conditions at the time.<sup>4</sup> The current estimate of the extreme event tsunami wave entering San Francisco Bay is about 33 feet. The height of the extreme tsunami wave at Richmond might be about 16 feet. The runup could be about 30 percent higher, depending on the slopes at the shoreline and vicinity. It is feasible that a tsunami could occur in combination with a high tide.<sup>5</sup>

### **12.1.3 Existing Storm Drainage Facilities**

The City contracts with Veolia Water North America to operate and maintain its storm drainage facilities. The City's system is classified as a small, separate storm sewer system (MS4) regulated entity under the Phase I National Pollutant Discharge Elimination System (NPDES) program (see section 12.2.3 below). MS4 systems serve populations under 100,000 and discharge into local rivers and/or streams without treatment. Under the Phase I NPDES program requirements, the City is required to implement a program to eliminate, reduce, or improve the conditions of direct discharges of polluted storm water to the maximum extent practicable; protect water quality of the receiving waters (San Francisco Bay); and fulfill the water quality requirements of the Clean Water Act.

Several flooding problem areas exist within the City's storm drainage system, mainly due to four factors: (1) undersized pipes for runoff, even for minor storms; (2) damaged curb and gutters where raised gutters and other obstructions disrupt the flow; (3) area(s) without a storm drain

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<sup>1</sup>A-N West, Inc., Consulting Engineers, Richmond General Plan Update Issues & Opportunities Paper 3: Natural Hazards, Draft, prepared for Moore Iocofano Goltsman, Inc., May 2006, page 36.

<sup>2</sup>Richmond Redevelopment Areas Merger and Amendments Draft EIR, February 1999, page 80.

<sup>3</sup>A-N West, Inc., Consulting Engineers, Richmond General Plan Update Issues & Opportunities Paper 3: Natural Hazards, Draft, prepared for Moore Iocofano Goltsman, Inc., May 2006, Map 3.4, page 23.

<sup>4</sup>Final EIS/EIR for the Disposal and Reuse of Fleet and Industrial Supply Center, Naval Fuel Depot Point Molate, February 2002, page 3-69.

<sup>5</sup>A-N West, Inc., Consulting Engineers, Richmond General Plan Update Issues & Opportunities Paper 3: Natural Hazards, Draft, prepared for Moore Iocofano Goltsman, Inc., May 2006, page 32.

system; and (4) damaged pipes or debris/large solids built up within the pipe. These problem areas are located northeast of San Pablo Dam Road and Interstate 80, in portions of Point Richmond, along 1<sup>st</sup> Street near Macdonald Avenue, along Pennsylvania Avenue between 3<sup>rd</sup> and 9<sup>th</sup> streets, and along significant portions of Cutting Boulevard. For areas with potentially severe flooding, a recent storm drain analysis recommended improvements that include (1) replacing deficient portions with larger facilities that will provide greater capacity, (2) adding pipes or inlets to work with the existing system, and (3) intercepting and re-routing surface flow with new pipes, inlets, and basins upstream of the flooding areas before flow can accumulate in these areas.<sup>1</sup>

#### **12.1.4 Water Quality**

Richmond contains three major types of water movement systems: groundwater, surface water, and waters of San Francisco and San Pablo bays. The Richmond General Plan EIR describes water quality conditions in these three systems as follows.<sup>2</sup>

(a) Groundwater. Groundwater is found primarily in flatland areas with alluvial soils. Due to clay-rich soils, drainage is poor and the groundwater basin is shallow. In the Point San Pablo vicinity, groundwater recharge occurs in the up-gradient hillsides primarily during rainstorms in the wet season (November through February). Monitoring well data at Point Molate indicate that the groundwater level is influenced more by recharge than by tidal influence along the shoreline.<sup>3</sup>

Groundwater use in Richmond is limited primarily to irrigation. The shallow groundwater basin is susceptible to pollution, e.g., from potentially leaky underground storage tanks and abandoned hazardous waste sites. (See chapter 15, Hazardous Materials.)

(b) Surface Water. Surface water quality depends on the purity of storm water runoff. Past data have indicated that surface water in Richmond has contained contaminants such as organic metals, pesticides, formaldehyde, phenols, and PCBs.

The storm water drainage system and creeks carry runoff from areas throughout the city that contain industrial businesses. Many industries in Richmond use, handle, and store chemicals, and generate a variety of chemical wastes or by-products. Deposition of chemicals (solvents, fuels, waste materials) through accidental spills or storage and disposal may result in contamination of soils, groundwater, and surface runoff. Petroleum products are of concern, especially during fueling operations. Intentional and illegal dumping of chemicals also undoubtedly has occurred. Materials may also leak into ground and surface waters from drain and sewer collection systems.

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<sup>1</sup>A-N West, Inc., Consulting Engineers, Richmond General Plan Update Issues & Opportunities Paper 2: Public Infrastructure Facilities, Draft, prepared for Moore Iocofano Goltsman, Inc., May 2006, pages 7 through 9.

<sup>2</sup>City of Richmond General Plan and Zoning Ordinance Update Program Draft EIR, August 17, 1993, pages IV.J.3 through IV.J.5.

<sup>3</sup>Final EIS/EIR for the Disposal and Reuse of Fleet and Industrial Supply Center, Naval Fuel Depot Point Molate, February 2002, page 3-67.

Streets are collection areas for pollutants that contaminate runoff and receiving waters. Local soil erosion and motor vehicle emissions deposit pollutants on street surfaces. Most of these materials are carried by surface runoff to storm drains.

Soil erosion occurs in exposed and steep areas throughout Richmond. Site clearing and cut-and-fill operations associated with construction tend to expose large areas of land to erosion. In the short term, such activities can increase suspended solids concentrations (turbidity) in the storm drain system, creeks, and the bay. Construction activity, including truck and heavy equipment traffic, tends to spread soil onto surrounding roads and walkways. Much of this material is washed into storm drains during rain storms or when water is used to wash down the area around building sites. Erosion can also occur if soil is stored on the site in piles or if surcharges are used.

(c) Bay Waters. In addition to the factors noted above, long-term changes throughout the region have affected water quality in San Francisco and San Pablo bays. Diking and filling have decreased wetland area by more than half, freshwater inflow from the Sacramento Delta has dramatically decreased due to water diversion projects in the Central Valley, and wastes have contaminated sediments and organisms.

## **12.2 PERTINENT PLANS AND POLICIES**

### **12.2.1 Federal Regulations**

The major federal legislation governing surface waters and water quality is the Clean Water Act as amended by the Water Quality Act of 1987. The objective of the Clean Water Act is “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” In general, implementation of many aspects of the Clean Water Act under the U.S. Environmental Protection Agency has been delegated to individual states.

The U.S. Army Corps of Engineers has jurisdiction over projects involving “waters of the United States” and under the federal Clean Water Act would require review and possible permitting of any project involving construction in creeks or wetland areas. The Corps of Engineers’ jurisdiction includes authority over all proposed discharges of dredged or fill material into waters of the United States.<sup>1</sup> (See also chapter 9, Biological Resources.)

### **12.2.2 State Regulations**

California regulations that could affect hydrologic aspects of creeks and waterways in the Merged Project Area include the Porter-Cologne Water Quality Control Act (Division 7 of the California Water Code), which provides the basis for water quality regulation in California. Under this Act, the Merged Project Area lies within the jurisdiction of the Regional Water Quality Control Board (RWQCB), San Francisco Bay Region. (See section 12.2.3, “Regional Water Quality Control Board Regulations,” below.)

In addition, the California Department of Fish and Game (CDFG) has jurisdiction over any activity that could affect the bank or bed of any stream that has value to fish and wildlife. If any changes are proposed along a creek or waterway within CDFG’s jurisdiction, a Streambed

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<sup>1</sup>Richmond Redevelopment Areas Merger and Amendments Draft EIR, February 1999, page 83.

Alteration Agreement would be required under California Fish and Game Code sections 1601-1606.<sup>1</sup> (See also chapter 9, Biological Resources.)

### **12.2.3 Regional Water Quality Control Board Regulations**

The RWQCB is responsible for the protection of beneficial uses of water resources within the San Francisco Bay Region. The RWQCB uses planning, permitting, and enforcement authorities to meet this responsibility, and has adopted the Water Quality Control Plan (Basin Plan) (latest edition 1995) to implement plans, policies, and provisions for water quality planning and management. The Basin Plan contains water quality objectives that are intended to protect the beneficial uses of the basin. The RWQCB has set water quality objectives for all surface waters in the region. Water quality objectives are also listed for groundwater.

The RWQCB administers the National Pollutant Discharge Elimination System (NPDES) storm water permitting program in the Bay Area. Storm water quality control regulations, effective August 2006, stipulate that construction activities that create or replace more than 10,000 square feet of impervious area (e.g., roofs, streets, patios, driveways, walks, and parking lots, but excluding a single-family residence not part of a larger project) are subject to revised permitting requirements--i.e., must apply for an NPDES General Permit for Discharges of Storm Water Runoff Associated With Construction Activity (General Construction Permit). The previous impervious area limit was one acre.<sup>2</sup>

The City has recently adopted an associated Stormwater Management and Discharge Control Ordinance (RMC section 12.22). Under the new ordinance, project owners must apply for a General Construction Permit prior to the beginning of construction involving 10,000 square feet or more of impervious area. Issuance of a General Construction Permit requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP must be prepared before construction begins, usually during the planning and design phases of a project. The SWPPP must include specifications for Best Management Practices (BMPs) to be incorporated in project landscaping as well as engineering specifications that would be implemented during project construction to control contamination of surface flows and the potential discharge of pollutants from the site. Additionally, the SWPPP must describe measures to prevent or control pollutants in runoff after construction is complete, and must include an Operations and Maintenance Plan providing for ongoing inspection and maintenance of these measures.

Implementation of the SWPPP starts with the commencement of construction and continues through project completion. The SWPPP document itself remains on-site during construction. After completion of the project, the owners submit a Notice of Termination indicating that construction is completed.

New development projects covered under the revised standards include both private development projects and public projects such as streets, roads, and parking lots. Significant redevelopment projects covered under the revised standards include major reworking of existing

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<sup>1</sup>Richmond Redevelopment Areas Merger and Amendments Draft EIR, February 1999, page 83.

<sup>2</sup>A-N West, Inc., Consulting Engineers, Richmond General Plan Update Issues & Opportunities Paper 2: Public Infrastructure Facilities, Draft, prepared for Moore Iocofano Goltsman, Inc., May 2006, page 42.

sites, and can include downtown redevelopment projects, but do not include regular maintenance (e.g., roof replacement, routine repaving, etc.) and interior remodels.<sup>1</sup>

Projects must incorporate source controls, design measures, and treatment controls to minimize storm water pollutant discharges. Where incorporating controls into a project is clearly impracticable--for example, at highly constrained downtown redevelopment sites--projects are allowed to satisfy their obligation elsewhere by implementing measures to provide an "equivalent water quality benefit." The permit allows cities to develop their own program to do this, subject to approval of the RWQCB. Alternately, projects may participate in regional solutions--such as storm water wetlands that treat runoff from a broad area--rather than providing on-site treatment controls.

#### **12.2.4 Contra Costa County Regulations**

The Contra Costa County Public Works Department and Contra Costa County Flood Control and Water Conservation District (CCCFCWCD) oversee the development and implementation of drainage systems in the county that have regional drainages. The County also coordinates with the U.S. Army Corps of Engineers for construction of large flood control improvement projects. Within the City of Richmond, the CCCFCWCD owns the right-of-way along San Pablo and Wildcat creeks from the mouth of the creeks in the bay upstream to the railroad tracks (near Giant Highway).<sup>2</sup> The County maintains a storm water pump station and related drainage facilities at Richmond Parkway and Gertrude Avenue, at the boundary of the Merged Project Area.<sup>3</sup>

#### **12.2.5 City of Richmond General Plan**

The City of Richmond General Plan contains the following policies and implementation programs that, in governing all project-related redevelopment activities and project-related development, would serve to mitigate associated adverse drainage or water quality impacts:

- *City will implement a storm water management (storm water pollution control) program intended to prevent any increases in pollutants in storm water discharges from the City's storm water system to waterways of the City and into San Francisco Bay. (Implementation Program CF-H.5)*
- *Comply with and maintain compliance with performance standards for...flood control established in Richmond's Growth Management Element, and apply the standards to Richmond's development review process... (Policy GM-B.1)*

[Note: Performance standard is containment by an approved flood control and drainage system of a 100-year flood event, as determined by the Federal Emergency Management Agency (FEMA).]

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<sup>1</sup>*Municipal Storm Water Permit Revisions.*

<sup>2</sup>Richmond Redevelopment Areas Merger and Amendments Draft EIR, February 1999, pages 83-84.

<sup>3</sup>Letter from Mario A. Consolacion, Senior Engineering Technician, Flood Control Engineering, Contra Costa County Flood Control and Water Conservation District, to Morty Prisament, Senior Planner, City of Richmond, September 13, 2004.

- *Ensure that the new development pays its share of the costs associated with the provision of facilities for...flood control, by attaching project-specific mitigation requirements as conditions of approval... (Policy GM-B.2)*
- *Control soil erosion to prevent flooding and destruction of natural waterways, to maintain water quality, to reduce costs for flood control works, and to prevent damage to construction sites. (Policy OSC-I.3)*
- *Reject any development proposals which would deplete or degrade the groundwater supply. (Policy OSC-K.1)*
- *Restrict construction of impervious surfaces in streambeds, which are essential to groundwater recharge. (Policy OSC-K.2)*
- *Prohibit underground disposal of liquid wastes. (Policy OSC-K.3)*
- *Provide for the monitoring and protection of groundwater through environmental reviews. (Policy OSC-K.5)*
- *Prevent deterioration of water quality and danger to public health by requiring all new developments to hook up to existing sewer systems. (Policy OSC-L.1)*
- *Support and encourage efforts of the San Francisco Bay Water Quality Control Board to [improve the quality of Bay water to a standard pure enough to use for water contact sports and for edible shellfish] by taking into consideration the following:*
  - (a) *Existing standards for municipal and industrial liquid waste disposal.*
  - (b) *Pollutants generated by storm water runoff.*
  - (c) *The degree of sewage treatment as well as the level of maintenance to reduce infiltration through leaks in sewage lines that are being provided by local agencies.*
  - (d) *The capability of local sanitary districts to extend sewer lines to unsewered but developed areas where waste disposal problems have developed, particularly in parts of El Sobrante.*
  - (e) *Plans for consolidation of local sewage facilities and the timing of such improvements to minimize costs. (Policy OSC-L.3)*
- *Protect the City's waterways and the Bay from run-off containing high concentrations of pesticides and fertilizers. (Policy OSC-M.2)*
- *City will require sufficient provision for storm drainage facilities on and off sites for any commercial, industrial, or large residential development to carry the runoff generated therein. In the absence of a waste drainage plan, the City will require the submittal of drainage plans to the County Flood Control District and to the Public Works Department. If the Flood Control District or the Public Works Department do not have sufficient information to evaluate the project, the City will require the developer to submit a study showing the effect of the development on downstream properties and to suggest means by which the effect could be reduced. (Implementation Program OSC-I.1)*
- *City will require developers of new projects on the upstream portions of San Pablo and Wildcat Creek watersheds to include designs to reduce the volume of surface runoff. Such design should minimize removal of native woodlands, maximize vegetated open space, and retard peak runoff of surface and subsurface drainage. (Implementation Program OSC-I.2)*

- *City will encourage that all upstream properties below San Pablo, which contribute runoff to the creek, be annexed to the flood control districts. (Implementation Program OSC-I.3)*
- *City will require a revegetation plan as part of all grading permits. Destroyed or damaged vegetation on slopes or at quarries shall be replaced. Revegetation plans will require the use of native plant species for landscaping purposes wherever possible. Species...which invade plant communities, should not be used...Removal of vegetation in all new development should be minimized. In particular, the cutting of mature native woodland trees, especially on unsuitable slopes and in creek beds, will be controlled. (Implementation Program OSC-I.5)*
- *City will require grading permits for grading in all areas of the city. An erosion control plan and revegetation plan will be required as part of all grading permits, except where specifically exempted by the Public Works Department. In addition, runoff should be controlled and released safely downstream. (Implementation Program OSC-I.6)*
- *City will require project applicants to minimize construction erosion impacts by developing and implementing soil erosion plans as part of the site-specific environmental review process. These plans would meet the standards set forth in ABAG's Manual of Standards for Erosion and Sedimentation Control Measures (1981). The following guidelines should be incorporated into these plans:*
  - 1) *Remove surface cover from soil only when construction is ready to begin. Uncover soils only at the building site. Leave areas not proposed for development undisturbed.*
  - 2) *Conduct grading only during the summer dry season (May through September).*
  - 3) *Cover stockpiles of soil. (Implementation Program OSC-I.7)*
- *City will develop and implement a storm water management plan particularly relating to commercial and industrial activity. (Implementation Program OSC-I.12)*
- *City will require approval from a qualified engineer under the jurisdiction of the Public Works Department prior to authorizing the construction of retaining walls (over 4' in height measured from the bottom of the footing to the top of the wall) or other improvements that will change the flow of water in local waterways. (Implementation Program OSC-I.13)*
- *City will, through the Development Review Organization, require adequate design of improvements adjacent waterways, such as buildings and parking lots, so as not to create points of concentrated water flow over the bank. The City will further discourage irrigation adjacent to these waterways. (Implementation Program OSC-I.15)*
- *City will encourage appropriate public agencies to acquire hazardous or unbuildable creekside lots as they are marketed and to convert them to low-density public uses, such as picnic areas. (Implementation Program OSC-I.18)*
- *City will require that a project applicant gain approval of a plan to test, monitor, and dispose of dewatering discharge and soil that is excavated prior to approval of a site-specific development plan where excavation is proposed. (Implementation Program OSC-K.2)*
- *City will continue to review standards for sewage and industrial liquid waste disposal, and revise them if necessary to provide the best possible protection from chemical, organic and thermal pollution for the waters of the area. (Implementation Program OSC-L.1)*

- *Encourage the Flood Control District and require new development to install and maintain flood control measures on all creeks and watersheds in order to reduce the damage from a 100-year flood, tsunami, sea level rise, and seiches to a level acceptable to the community. (Policy SF-C.1)*
- *Strictly enforce laws prohibiting the dumping of litter, fill, and waste materials into the creeks, and educate the public about the flooding and health hazards associated with such dumping. (Policy SF-C.2)*
- *Require special design features to prevent damage from flooding for all new development located within the areas subject to a special flood hazard, as determined by the Federal Flood Insurance Rate Maps. (Policy SF-C.3)*
- *Require all development in areas prone to sea level rise to have adequate floor elevations and other site improvements that may be necessary. (Policy SF-C.4)*
- *City will require the following measures prior to approval of a specific development plan for a facility that handles hazardous materials.*
  - a) *Sealed, reinforced concrete should be used where hazardous materials could be handled...*
  - b) *A roof should cover all loading, unloading, and handling areas to minimize rain falling on hazardous waste handling areas. This both reduces the risk of rain associated with accidents (slips) and reduces the amount of storm water runoff that needs to be collected and tested prior to discharge.*
  - c) *All storm water runoff...that comes from hazardous material handling areas or enters hazardous material handling areas should be collected and tested prior to discharge. Sumps should be built to contain any runoff collected; these would also contain spills and mixtures of runoff and spills. Sumps can be used to hold runoff until it can be tested and either discharged to the sewer or disposed of as hazardous waste. (Implementation Program SF-B.8)*
- *City will enforce local regulations regarding illegal dumping of unwanted materials into local waterways. (Implementation Program SF-C.2)*
- *City will periodically monitor and inspect existing and proposed developments located in areas prone to sea level rise. (Implementation Program SF-C.4)*
- *City will continue to request that all land use development proposed within areas designated as medium to high flood areas submit geotechnical documentation mitigating any adverse impacts caused by the project. (Implementation Program SF-C.5)*
- *City will incorporate a Flood Hazard Constraint Area into the RE – Resource Management District of the updated Zoning Ordinance, as soon as practical after the adoption of the updated General Plan and Zoning Ordinance. The Constraint Area shall reflect information provided on the updated FEMA maps for the City of Richmond (when those maps are completed), and other information, as is appropriate. (Implementation Program SF-C.6)*

- *City will establish an annual budget, as funds are available, to correct local drainage problems.* (Implementation Program SF-C.8)

It is not expected that the policies listed above will change substantially with the update of the General Plan now underway.

### **12.2.6 City of Richmond Floodplain Management Regulations**

The City has adopted floodplain management regulations under chapter 12.56 of the Municipal Code to minimize public and private losses due to flood conditions in specific areas. The areas of special flood hazard are those identified by the Federal Emergency Management Agency on Flood Insurance Rate Maps. (See section 12.1.2, "Flooding and Flood-Prone Areas," above.) The ordinance requires a development permit before any construction or other development begins within any area of special flood hazard, and special provisions for construction, elevation, flood-proofing, and other flood hazard reduction methods are required.<sup>1</sup>

## **12.3 IMPACTS AND MITIGATION MEASURES**

### **12.3.1 Significance Criteria**

Based on the CEQA Guidelines,<sup>2</sup> the project and project-facilitated future development activities would be considered in this EIR to have a significant drainage or water quality impact if they would:

- (a) violate any water quality standards or waste discharge requirements;
- (b) substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level;
- (c) substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site;
- (d) substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate of amount of surface runoff in a manner that would result in flooding on- or off-site;
- (e) create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff;
- (f) otherwise substantially degrade water quality;
- (g) place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;

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<sup>1</sup>Richmond Redevelopment Areas Merger and Amendments Draft EIR, February 1999, page 84.

<sup>2</sup>CEQA Guidelines, Appendix G, Items VIII(a) through VIII(j) and XVI(c).

- (h) place within a 100-year flood hazard area structures that would impede or redirect flood flows;
- (i) expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam;
- (j) expose people or structures to inundation by seiche, tsunami, or mudflow; or
- (k) require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

### **12.3.2 Impacts and Mitigation Measures**

The City of Richmond General Plan and Zoning Ordinance Updates Program Environmental Impact Report provided a program-level analysis of environmental impacts resulting from buildout of the General Plan. With the exception of potential flooding impacts, other hydrologic and water quality impacts resulting from buildout of the General Plan were found to be less-than-significant with implementation of mitigation measures included in the General Plan and Zoning Ordinance. Impacts found to be less-than-significant included the potential to exceed the capacity of local urban drainage systems; the potential to decrease the occurrence of springs, seeps, water bodies, and wetlands; the potential for water quality degradation from nonpoint sources including surface runoff; the potential for groundwater overdraft and reduction of groundwater recharge; and the potential for degradation of surface and ground water quality from point sources including hazardous waste leaks.<sup>1</sup>

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**Flooding Impacts.** Redevelopment-facilitated development of flood-prone areas, such as the southeastern corner of the Merged Project Area, areas south of Point Pinole, and other areas in central and western Richmond, could increase runoff and flooding hazards and contribute to cumulative flooding hazards. In addition, redevelopment-facilitated development in the waterfront portions of southern, central, and western Richmond could be subject to flooding from storm waves at high tides or from tsunamis.

Since there are no specific development proposals associated with the proposed redevelopment plan amendment, there would be no change from existing conditions and no direct flooding impacts associated with the program. However, the program could encourage and facilitate future development within these flood-prone areas. Because the proposed program is consistent with General Plan land use designations, this potential impact, at General Plan buildout, would be the same with or without the redevelopment program. Under the redevelopment program, however, development may occur sooner within the Merged Project Area than without the project. Potential flooding impacts associated with future development in flood-prone areas would include risk to public safety and property damage, as well as exacerbated flooding hazards, due to increased runoff volumes.

As described in section 12.2, "Pertinent Plans and Policies," above, the City of Richmond has extensive policies and programs designed to mitigate potential effects of development in floodprone areas, including measures to minimize public safety risks and property damage. These include General Plan Policies OSC-I.1, OSC-I.2, OSC-I.3, SF-C.1, SF-C.2, SF-C.3, and SF-C.4; General Plan Implementation Programs OSC-I.1, OSC-I.3, OSC-I.17, SF-C.1, SF-C.2,

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<sup>1</sup>Richmond Redevelopment Areas Merger and Amendments Draft EIR, February 1999, page 88.

SF-C.3, SF-C.4, SF-C.6, SF-C.7, and SF-C.8. In particular, Implementation Program SF-C.5 requires the City to incorporate new flood control measures and to require new developments in medium- to high-flood areas to conduct geotechnical investigations to mitigate potential flooding impacts. As mitigation for the effect of tsunamis, the General Plan EIR (page IV.I.17) identified Implementation Program SF-C.5, along with Mitigation Measure Geology-7 of the General Plan EIR requiring the City to incorporate a flood hazard constraint area into the RM-Resource Management District of the updated Zoning Ordinance.<sup>1</sup>

Compliance with these measures for new developments would mitigate potential flooding impacts in the identified flood-prone areas. Compliance with Implementation Program SF-C.7 would assure that cumulative flood hazards associated with regional development, including potential future development in the Merged Project Area, would be mitigated.

Due to the City's extensive policies and programs designed to mitigate potential effects of development in flood-prone areas, the project's flooding impacts and its contribution to cumulative flooding impacts would be ***less than significant***.

**Mitigation for Flooding Impacts.** No significant flooding impact has been identified; no mitigation is required.

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**Local Storm Drainage System Impacts.** Future development within the Merged Project Area facilitated by the proposed redevelopment plan amendment could exceed the capacity of local storm drain systems or require construction of new or improved systems. Most of the City has existing storm drain facilities that can accommodate infill development. However, there may be locations, particularly in undeveloped or partially developed portions of the Merged Project Area, that would need new or improved systems in order to accommodate new development.

Development facilitated by the proposed project may in fact include various public improvements, including storm drainage, intended to spur private investment. Future development within the Merged Project Area would be subject to existing policies, regulations, and standards contained in the City's General Plan (see section 12.2, "Pertinent Plans and Policies," above). These include, in particular, General Plan Implementation Programs OSC-I.1, SF-C.6, SF-C.7, and SF-C.8. Among other measures, these programs would require provision of sufficient storm drainage facilities and submittal of future drainage plans for review by the Contra Costa County Flood Control and Water Conservation District and to the County Public Works Department, as appropriate. The project's impact and its contribution to cumulative impacts would therefore be considered ***less than significant***.

**Mitigation for Local Storm Drainage System Impacts.** No significant storm drainage impact has been identified; no mitigation is required.

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<sup>1</sup>Richmond Redevelopment Areas Merger and Amendments Draft EIR, February 1999, page 75.

**Impact 12-1: Impacts on Surface Water Quality.** Surface water pollutants associated with project-facilitated additional development activity, including soil disturbance associated with grading activities during construction, urban pollutants generated from new impervious surfaces and increased vehicular use, and possible increases in herbicide, pesticide, and fertilizer use (for landscaping), could combine to significantly degrade the quality of San Francisco Bay receiving waters. This combination of factors represents a ***potentially significant project and cumulative impact*** (see criterion (a) in section 12.3.1, "Significance Criteria," above).

Project-facilitated additional urban development within the Merged Project Area could further degrade downstream water quality. In particular, grading activities required for new development could have short-term erosion and associated sedimentation impacts. In addition, urban debris and oil and grease that collect on new paved surfaces and are then washed into drainages could further impair runoff water quality and ultimately water quality in downstream receiving waters of San Francisco Bay. Increased uses of herbicides, pesticides, and fertilizers associated with new, project-facilitated development and related landscaping activities could also add to this contamination of receiving waters. New project-facilitated commercial and industrial operations could contaminate surface and groundwater if potential pollutants are spilled or disposed of improperly. (See further discussion in chapter 15, Hazardous Materials.)

To mitigate construction-related drainage impacts, the General Plan EIR relied on existing City policies and programs (see section 12.2, "Pertinent Plans and Policies," above), including General Plan Implementation Programs OSC-I.5, OSC-I.6, and OSC-I.7. As mitigation for water quality impacts from non-point sources such as surface water runoff, the General Plan EIR cited existing policies, programs, and regulations including General Plan Policies OSC-L.1, OSC-L.3, and OSC-M.2 and Implementation Programs OSC-L.9 and OSC-I.11. As mitigation for impacts on water quality from point sources (such as hazardous materials releases from new industrial and commercial development, increase or degradation of sewage treatment plant effluent, and excavation of contaminated soils), the General Plan EIR cited existing policies and programs such as General Plan Policies OSC-K.3, OSC-K.5, and OSC-L.3, and Implementation Programs OSC-K.1, OSC-L.1, and SF-C.8.<sup>1</sup> These policies, programs, and requirements would be implemented and enforced during the City's review of subsequent development applications for specific projects. The following mitigation measure supplements these requirements.

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<sup>1</sup>Richmond Redevelopment Areas Merger and Amendments Draft EIR, February 1999, pages 91-92.

**Mitigation 12-1.** The City shall require the applicant for each future project-facilitated discretionary development to comply where applicable with all current state, regional, and City water quality provisions. Where required under adopted San Francisco Bay Regional Water Quality Control Board (RWQCB) regulations, the City shall require applicants to (a) file with the RWQCB a *Notice of Intent* to comply with the Statewide General Permit for Construction Activities; (b) prepare and implement a project-specific Storm Water Pollution Prevention Plan (including an erosion control plan) if grading is involved; (c) implement a monitoring, inspection, and documentation program to assure the effectiveness of control measures, including post-construction measures; (d) obtain or comply with existing General Storm Water Discharge Permit(s) for Industrial Activities, where applicable; and (e) comply with the NPDES Phase II Non-Point Discharge program and the City's Stormwater Management and Discharge Control Ordinance (RMC section 12.22). Implementation of these requirements would reduce this impact to a ***less-than-significant level***.

Compliance with City and RWQCB provisions typically includes the following:

*(i) NPDES General Permit for Storm Water Discharge Associated with Construction Activity.*

At the time of development of each subsequent project-facilitated private development or public improvement involving the grading of more than 5,000 square feet (as of October 15, 2004), the applicant shall file a *Notice of Intent* with the RWQCB. All storm water discharges must be mitigated in compliance with the City's NPDES permit.

*(ii) Storm Water Pollution Prevention Plan.* The applicant shall prepare and implement a *Storm Water Pollution Prevention Plan* (SWPPP) for review and approval prior to issuance of a grading permit. The NPDES General Permit and the permit-required SWPPP shall address both erosion and non-point source pollution impacts (e.g., improper handling or accidental spill of toxic materials) from project construction.

The SWPPP, at a minimum, shall follow all City ordinances and conform to the California *Storm Water Best Management Practices Handbook*, and shall include, but not be limited to, the following provisions:

- Immediately revegetate or otherwise protect all disturbed areas from both wind and water erosion upon the completion of grading activities.
- To the extent possible, schedule major site development work involving earth moving and excavation for the dry season (April 15 to October 15). If grading is to be conducted in winter, implement an approved erosion control plan prior to October 15th. Capture and deposit all runoff prior to discharge into Merged Project Area drainages.
- Incorporate measures as necessary to protect Merged Project Area drainages from sedimentation.
- Use water bars, temporary swales and culverts, mulch and jute netting, hydroseeding, silt fences, and sediment traps where necessary to prevent surface water from eroding graded areas and to retain sediment.

- Water soils susceptible to wind erosion frequently during construction.

*(iii) Post-Construction Control Measures.* Post-construction source controls to prevent the discharge of pollutants from new projects have been widely implemented across the Bay Area. Examples include but are not limited to:

- indoor mat/equipment wash racks;
- sanitary sewer drains for swimming pool drains and covered areas of parking structures; and
- covered trash enclosures, fueling bays, and loading docks.

Examples of site design measures include, but are not limited to:

- roof downspouts leading to splash blocks or "bubble-ups";
- minimum-impact street design standards; and
- minimum-impact parking lot standards, including use of landscaping as a storm water drainage feature.

*(iv) Range of Possible Measures.* Since the objective of erosion control and water quality treatment measures is to reduce contaminant loading to the extent practicable with implementation of the best available technologies, the Best Management Practices (BMPs) recommended above are not fixed. Over time, new BMPs and policies may be applied and adopted by the RWQCB and the City of Richmond.

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**Impacts on Groundwater Recharge.** Redevelopment-facilitated development in the Merged Project Area could reduce the amount of groundwater recharge. While a large percentage of the Merged Project Area is urbanized, the construction of additional impervious surfaces could reduce the amount of groundwater recharge, which could in turn cause subsidence and water quality impacts. Implementation and enforcement of existing City policies, programs, and regulations during the City's review of subsequent individual development applications would reduce potential groundwater impacts, however. Specifically applicable policies and programs, as cited in the General Plan EIR, include General Plan Policies OSC-K.1, OSC-K.2, and OSC-K.5 (see section 12.2, "Pertinent Plans and Policies," above). The project's impact and its contribution to cumulative impacts would therefore be considered ***less than significant***.

**Mitigation for Impacts on Groundwater Recharge.** No significant groundwater recharge impact has been identified; no mitigation is required.



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## 13. NOISE

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This EIR chapter describes the existing noise environment in the Merged Project Area, anticipated changes in that noise environment as a result of the project-facilitated development, and related significant adverse noise impacts and mitigation needs.

### 13.1 SETTING

#### 13.1.1 Fundamentals of Acoustics

(a) Definitions of Noise. Noise is defined as unwanted sound. The effects of noise can range from interference with sleep, concentration, and communication, to physiological stress, and at higher noise levels, hearing loss.

Sound levels are usually measured and expressed in decibels (dB), with 0 dB corresponding roughly to the threshold of hearing. The term "decibels" and other related technical terms are defined in Table 13.1.

(b) Human Sensitivity to Noise. The method commonly used to quantify environmental noise involves measurement of all frequencies of sound, with an adjustment to reflect the fact that human hearing is less sensitive to low and high frequencies than to midrange frequencies. This measurement adjustment is called "A" weighting. A noise level so measured is called an A-weighted sound level (dBA).<sup>1</sup> Examples of typical A-weighted noise levels in the environment and industry are provided in Table 13.2.

Environmental noise fluctuates in intensity over time. Therefore, time-averaged noise level computations are typically used to quantify noise levels and determine impacts. The two average noise level descriptors most commonly used are  $L_{dn}$  and CNEL.  $L_{dn}$ , the day/night average noise level, is the 24-hour average, with a 10 dBA penalty added for nighttime noise (10:00 PM to 7:00 AM) to account for the greater human sensitivity to noise during this period. CNEL, the community equivalent noise level, is similar to  $L_{dn}$ , but adds a five dBA penalty to evening noise (7:00 PM to 10:00 PM).

One way of anticipating a person's subjective reaction to a new noise is to compare the new noise with the existing noise environment to which the person has become adapted, i.e., the so-called "ambient" noise level. With regard to increases in A-weighted noise levels, knowledge of the following relationships will be helpful in understanding this EIR chapter:

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<sup>1</sup>In practice, the level of a sound source is conveniently measured using a sound level meter that includes an electrical filter corresponding to the A-weighting curve.

Table 13.1

**DEFINITIONS OF ACOUSTICAL TERMS**

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<u>Term</u>	<u>Definitions</u>
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. All sound levels in this report are A-weighted.
$L_{01}$ , $L_{10}$ , $L_{50}$ , $L_{90}$	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Equivalent Noise Level, $L_{eq}$	The average A-weighted noise level during the measurement period.
Community Noise Equivalent Level, CNEL	The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels in the evening from 7:00 PM to 10:00 PM and after addition of 10 decibels to sound levels in the night between 10:00 PM and 7:00 AM.
Day/Night Noise Level, $L_{dn}$	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 PM and 7:00 AM.
$L_{max}$ , $L_{min}$	The maximum and minimum A-weighted noise level during the measurement period.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Single-Event Noise Exposure Level (SEL)	The sound exposure level of a single noise event (such as an aircraft flyover or a train passby) measured over the time interval between the initial and final times for which the sound level of the single event exceeds the background noise level.

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SOURCE: Illingworth & Rodkin, Inc.

Table 13.2  
TYPICAL SOUND LEVELS MEASURED IN THE ENVIRONMENT AND INDUSTRY

<u>At a Given Distance from Noise Source</u>	<u>A-Weighted Sound Level in Decibels</u>	<u>Noise Environments</u>	<u>Subjective Impression</u>
	140		
Civil Defense Siren (100')	130		
Jet Takeoff (200')	120		Pain Threshold
	110	Rock Music Concert	
Pile Driver (50')	100		Very Loud
Ambulance Siren (100')			
	90	Boiler Room	
Freight Cars (50')		Printing Press Plant	
Pneumatic Drill (50')	80	In Kitchen With Garbage Disposal Running	
Freeway (100')			
	70		Moderately Loud
Vacuum Cleaner (10')	60	Data Processing Center	
		Department Store	
Light Traffic (100')	50	Private Business Office	
Large Transformer (200')			
	40		Quiet
Soft Whisper (5')	30	Quiet Bedroom	
	20	Recording Studio	
	10		Threshold of Hearing
	0		

SOURCE: Illingworth & Rodkin, Inc

- Except in carefully controlled laboratory experiments, a change of one dBA cannot be perceived.
- Outside of the laboratory, a three dBA change is considered a just-perceivable difference.
- A change in noise level of at least five dBA is required before any noticeable change in community response would be expected.
- A 10 dBA increase is subjectively heard as approximately a doubling in loudness, and would almost certainly cause an adverse change in community response.

(c) Structural Attenuation. Typical structural attenuation is 12 to 17 dBA with open windows. With closed windows in good condition, the noise attenuation factor is around 20 dBA for an older structure and 25 dBA for a newer dwelling.

(d) Typical Noise Levels. Levels of 55 to 60 dBA are common along collector streets and secondary arterials, while 65 to 70 dBA is a typical value for a primary/major arterial. Levels of 75 to 80 dBA are normal noise levels at the first row of development outside a freeway right-of-way.

### **13.1.2 Sleep and Speech Interference**

The thresholds for speech interference indoors are about 45 dBA if the noise is steady and above 55 dBA if the noise is fluctuating. Outdoors the thresholds are about 15 dBA higher. Steady noise of sufficient intensity (above 35 dBA) and fluctuating noise levels above about 45 dBA have been shown to affect sleep. Interior residential standards for multi-family dwellings are set by the State of California at 45 dBA  $L_{dn}$ . Typically, the highest steady traffic noise level during the daytime is about equal to the  $L_{dn}$ , and nighttime levels are 10 dBA lower. The standard is designed for sleep and speech protection and most jurisdictions apply the same criterion for all residential uses.

As noted above, typical structural attenuation is 12 to 17 dBA with open windows; with closed windows in good condition, the noise attenuation factor is around 20 dBA for an older structure and 25 dBA for a newer dwelling. Sleep and speech interference is therefore possible when exterior noise levels are about 57 to 62 dBA  $L_{dn}$  with open windows and 65 to 70 dBA  $L_{dn}$  if the windows are closed. Also as noted above, noise levels of 55 to 60 dBA are common along collector streets and secondary arterials, while 65 to 70 dBA is a typical value for a primary/major arterial. Levels of 75 to 80 dBA are normal noise levels at the first row of development outside a freeway right-of-way. In order to achieve an acceptable interior noise environment, bedrooms facing secondary roadways need to be able to have their windows closed, and those facing major roadways and freeways typically need special glass windows.

### **13.1.3 Existing Noise Environment**

The existing noise environment in the Merged Project Area primarily consists of transportation noise sources, including vehicular traffic along highways and major thoroughfares, local arterial and collector roadways traversing the areas, railroad trains, BART, and adjacent industrial and commercial noise sources. Existing noise level information in this EIR chapter is based on the noise contour information in the City of Richmond General Plan Noise Element. Existing noise conditions within the Merged Project Area can be generally described by subarea as follows:

(a) Central Richmond. The Merged Project Area encompasses much of central Richmond, i.e., the area generally bounded by Interstate 580 (I-580) on the south, Interstate 80 (I-80) on the east, Garrard Boulevard/Richmond Parkway on the west, and the San Pablo city limits on the north. Noise sources affecting central Richmond primarily include vehicular traffic, railroads, and BART. Areas adjoining I-80, I-580, and Richmond Parkway, as well as the major rail lines, are exposed to noise levels exceeding 70  $L_{dn}$ . Noise levels in areas adjacent to BART and major roadways--including Harbour Way, 23<sup>rd</sup> Street, Cutting Boulevard, Ohio Avenue, Macdonald Avenue, and Barrett Avenue--exceed 60  $L_{dn}$ . Noise levels throughout much of central Richmond exceed 60  $L_{dn}$ , due primarily to the number of major thoroughfares and rail lines traversing the area.

(b) Southern Richmond. The Merged Project Area also encompasses most of southern Richmond, located generally south of I-580 in the vicinity of Canal Boulevard, Harbour Way South, Marina Bay Parkway, and the Point Isabel Regional Shoreline. A BNSF railroad line paralleling Canal Boulevard also adjoins the area. Noise sources affecting southern Richmond include the roadways and railroad mentioned above and industrial and port/marine uses in the vicinity. Noise levels in areas immediately adjacent to transportation noise sources and some industrial and port/marine uses currently exceed 60  $L_{dn}$ . In areas away from these noise sources, exterior noise levels are typically 60  $L_{dn}$  or less.

(c) Western and Northwestern Richmond. The Merged Project Area includes portions of western and northwestern Richmond--i.e., the area generally west of Garrard Boulevard and north of I-580, extending north generally along 13<sup>th</sup> Street/Rumrill Boulevard and Giant Highway to Richmond Parkway, and then north of Richmond Parkway generally west of Giant Highway and the Union Pacific railroad tracks. Land use in this area is predominantly industrial, including heavy and light industry, warehousing and distribution, bulk storage, and vehicle storage. The predominant noise sources affecting this area include vehicular traffic along I-580, Castro Street, Richmond Parkway, and other streets, along with rail lines in the vicinity. Transportation noise sources and adjacent industrial operations result in noise levels greater than 60  $L_{dn}$  throughout much of the area, and greater than 70  $L_{dn}$  in areas immediately adjacent to I-580, Castro Street, Richmond Parkway, and the major rail lines.

(d) Point San Pablo. The Merged Project Area includes two subareas at the northwestern tip of the San Pablo Peninsula. Point San Pablo is located in the westernmost portion of Richmond and is bounded to the west, north, and east by San Pablo Bay. Heavy industry bounds the two subareas to the south. Given the area's remote location from major noise sources, exterior noise levels are generally less than 60  $L_{dn}$ , with the exception of areas immediately adjacent to existing heavy industrial uses.

(e) Hilltop Area. The Merged Project Area includes a relatively small site south of Hilltop Mall Road at Shane Drive in the Hilltop area in northern Richmond. Traffic noise generated along roadways in the vicinity generally results in exterior noise levels of 60  $L_{dn}$  or greater. Significant noise-generating roadways affecting the area include I-80, Hilltop Drive, and Robert Miller Drive. Noise generated by major railroads or BART does not substantially contribute to the noise environment within the Hilltop area.

#### **13.1.4 Ground-Borne Vibration**

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. The rumbling sound caused by the vibration of room surfaces is called ground-borne vibration. Both construction and operation

of development projects can generate ground-borne vibration. In general, demolition of structures preceding construction generates the highest vibrations. The predominant source of existing ground-borne vibration in the city is heavy trucks traveling on the local roadways. Construction equipment such as vibratory compactors or rollers, pile drivers, and pavement breakers can generate perceptible vibration during construction activities. Heavy trucks can also generate ground-borne vibrations that vary depending on vehicle type, weight, and pavement conditions.

## **13.2 PERTINENT PLANS AND POLICIES**

The following subsections identify state and local noise standards, policies and regulations that, in governing all project-related redevelopment activities and project-related development, would serve to mitigate associated adverse noise impacts.

### **13.2.1 State of California Building Code and Guidelines**

Environmental noise intrusion into new multi-family housing is regulated by Chapter 12, Section 1208, Sound Transmission Control, in the 1998 California Building Code. These State provisions specify that (1) interior noise levels attributable to exterior sources shall not exceed  $45 L_{dn}$  in any habitable room, and (2) residential structures proposed where the noise level exceeds  $60 L_{dn}$  shall require an acoustical analysis showing that the proposed design will limit exterior noise to the prescribed allowable interior level.

### **13.2.2 City of Richmond General Plan**

The City of Richmond addresses issues of land use compatibility, transportation noise, and community noise in the *Noise Element* of the City of Richmond General Plan (adopted in 1994). The City establishes goals and policies in the *Noise Element* to promote compatible development throughout the city. A Noise and Land Use Compatibility Matrix is also presented within the City's *Noise Element* to identify acceptable and unacceptable noise level ranges for specific land use types. The City has adopted the State of California Land Use Noise Compatibility Matrix for evaluating the compatibility of proposed land uses with the on-site noise environment (see Table 13.3).

The *Noise Element* includes the following goals and policies in particular that, in governing all project-related redevelopment activities and project-related development, would serve to mitigate associated adverse noise impacts:

- *Control the level of noise pollution in the community by preventing the development of incompatible land uses, rather than relying entirely on the acoustical techniques after the fact, such as sound walls, buffers, etc. (Goal NE-A)*
- *Discourage development where such development will significantly increase existing noise levels, unless mitigation measures are designed as part of the project to limit noise emissions to an acceptable level compared to the existing sound level. (Policy NE-A.1)*
- *Utilize the building code to establish standards which would require sound insulation to control sound transmission within and from outside structures. (Policy NE-A.3)*

Table 13.3  
 STATE OF CALIFORNIA AND CITY OF RICHMOND NOISE GUIDELINES FOR LAND USE  
 PLANNING

LAND USE CATEGORY	COMMUNITY NOISE EXPOSURE					
	Ldn or CNEL, dB					
	55	60	65	70	75	80
Residential – Low Density Single Family, Duplex, Mobile Home	[Hatched]		[Hatched]		[Solid Black]	[Dotted]
Residential – Multi-family	[Hatched]		[Hatched]		[Solid Black]	[Dotted]
Transient Lodging – Motel, Hotel	[Hatched]		[Hatched]		[Solid Black]	[Dotted]
Schools, Libraries, Churches, Hospitals, Nursing Homes	[Hatched]		[Hatched]		[Solid Black]	[Dotted]
Auditoriums, Concert Halls, Amphitheatres	[Hatched]		[Hatched]		[Solid Black]	[Dotted]
Sports Arena, Outdoor Spectator Sports	[Hatched]		[Hatched]		[Solid Black]	[Dotted]
Playgrounds, Neighborhood Parks	[Hatched]		[Hatched]		[Solid Black]	[Dotted]
Golf Courses, Riding Stables, Water Recreation, Cemeteries	[Hatched]		[Hatched]		[Solid Black]	[Dotted]
Office Buildings, Business, Commercial & Professional	[Hatched]		[Hatched]		[Solid Black]	[Dotted]
Industrial, Manufacturing, Utilities, Agriculture	[Hatched]		[Hatched]		[Solid Black]	[Dotted]
 <b>Normally Acceptable</b> Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.	 <b>Normally Unacceptable</b> New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.					
 <b>Conditionally Acceptable</b> New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.	 <b>Clearly Unacceptable</b> New construction or development should generally not be undertaken.					

SOURCE: City of Richmond General Plan, *Noise Element*, Figure NE-1, adopted 1994.

- *Avoid land uses that place residential dwellings with “heavy” industrial and maritime uses. (Policy NE-A.4)*
- *Require new commercial and industrial developments with potential noise and vibration producing activities to provide noise study reports prepared by a qualified professional with demonstrated experience in noise control engineering. (Policy NE-A.6)*
- *Require new developments of noise-sensitive uses locating in noise impacted areas of  $L_{dn}$  55 or greater to provide noise study reports prepared by a qualified professional with demonstrated experience in noise control engineering. (Policy NE-A.7)*
- *Investigate and mitigate or require mitigation of potential noise impacts on properties adjacent to public uses and facilities (e.g., outdoor sports activities at local schools). (Policy NE-A.8)*
- *Seek to limit the impact of nuisance noise sources upon noise-sensitive land uses and consider noise and vibration impacts in land use planning decisions. (Policy NE-A.9)*
- *Require parties responsible for noise-producing sources or activities to limit noise which affects nearby noise-sensitive land uses. (Policy NE-A.10)*

It is not expected that the goals and policies listed above will change substantially with the anticipated update of the General Plan now underway.

### **13.2.3 City of Richmond Municipal Code**

(a) Land Use/Noise Compatibility Standards. Chapter 9.52 (Community Noise Ordinance) of the Richmond Municipal Code contains the City's exterior noise levels limits for noises generated throughout the city. Code section 9.52.100 establishes maximum noise level standards not to be exceeded for periods of 30 minutes in an hour and 5 minutes in an hour. The ordinance states:

(a) No uses or activities shall create levels which exceed the following standards:

Zoning District:	Maximum Noise Level in dBA (levels not to be exceeded more than 30 minutes in any hour)		Maximum Noise Level in dBA (level not to be exceeded more than 5 minutes in any hour)
	Measured at Property Line or District Boundary	Measured at Any Boundary of a Residential Zone	Between 10PM and 7AM***, Measured at Any Boundary of a Residential Zone
Single-Family Residential	60		
Multi-Family Residential	65		
Commercial	70	60	50 or ambient noise level
Lt. Industrial and Office Flex*	70	60	50 or ambient noise level
Heavy and Marine Industrial**	75	65	50 or ambient noise level
Public Facilities and Community Use	65	60	50 or ambient noise level
Open Space and Recreational Districts	65	60	50 or ambient noise level

- \* For M-1 [Industrial/Office Flex] and M-2 [Light Industrial] the measurement will be at property lines.
- \*\* For M-3 [Heavy Industrial] and M-4 [Marine Industrial] the measurement will be at boundary of the district.
- \*\*\* Restricted hours may be modified through condition of an approved conditional use permit.

(b) In determining whether any noise exceeds the maximum exterior noise limits set forth in this section, measurements shall be taken at the property line of the property from which the noise emanates, except that for noise emanating from property in an M-3 or M-4 zoning district, measurement shall be taken at boundary of the zoning district in which the property is located.

(c) No person shall operate, or cause to be operated within a dwelling unit, any source of sound that causes the sound level when measured inside a neighboring receiving dwelling unit to exceed the allowable noise level, for any period of time.

(d) In the event the noise, as judged by the enforcing authority, contains a steady, pure tone such as a whine, screech or hum, or is an impulsive sound such as hammering or riveting, or contains music or speech, the standard limits set forth above shall be reduced by 5 decibels.

(e) The exterior noise limits for any source of noise within any residential zone shall be reduced by 10 dBA between 10:00 PM and 7:00 AM. The exterior noise limits for any source of noise in any zone other than a residential zone shall be reduced between 10:00

PM and 7:00 AM so that when measured at the property line of a "noise-sensitive use" the noise does not exceed 50 dBA.

The City has not adopted policies or standards for ground-borne vibration.

(b) Construction Noise and Vibration Regulation. To minimize construction-period noise and vibration impacts in Richmond, hours of construction are regulated in the Richmond Municipal Code, section 9.52.090. The section states that construction activity shall be permitted between the hours of 7:00 AM and 7:00 PM daily Monday through Friday; and between the hours of 8:30 AM and 6:00 PM on Saturday, Sunday, and national holidays in any residential or commercial zoning district or adjacent to any noise-sensitive uses. Prior to commencing any construction project, the project sponsor may meet and confer with the City Public Works Department to establish an appropriate construction schedule that is designed to minimize construction noise impacts and that conforms with the requirements of this subsection. Where construction activities on a construction project adjacent to any noise-sensitive use(s) are anticipated to last for a year or more, temporary noise barriers that minimize noise impacts shall be constructed to break the line of sight between the noise-sensitive use(s) and the construction project.

### **13.3 IMPACTS AND MITIGATION MEASURES**

#### **13.3.1 Significance Criteria**

The California Environmental Quality Act (CEQA) contains guidelines to evaluate the significance of effects of environmental noise attributable to a proposed project. Based on the CEQA Guidelines,<sup>1</sup> the proposed project would be considered in this EIR to have a significant impact on the noise environment if it would result in:

- (a) exposure of persons to or generation of noise levels in excess of standards established in the local General Plan or Noise Ordinance, or applicable standards of other agencies;
- (b) exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels;
- (c) a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project; or
- (d) a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

A significant impact would be identified if project-facilitated development would potentially be exposed to noise levels exceeding the City's established guidelines for noise and land use compatibility. A significant noise impact would also result if noise levels would increase substantially at existing noise-sensitive land uses (e.g., residences) due to project-related development or project-related traffic increases. Following common noise impact assessment practice, a project-related increase in noise level (e.g., traffic noise) of 4 dBA or more above the ambient noise level at a sensitive receptor (e.g., at the property line of a residential, school, hospital or other noise-sensitive use) between the hours of 10:00 PM and 7:00 AM would

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<sup>1</sup>CEQA Guidelines, Appendix G, Items XI(a) through XI(d).

constitute a significant impact. (A similar significance threshold was applied in the City-certified 1999 Richmond Redevelopment Areas Merger and Amendments EIR and the 2005 Richmond Redevelopment Plan Amendment Program EIR.<sup>1</sup>)

Project-related construction noise would be treated differently because construction noise is temporary and intermittent. Significant noise impacts would result from construction if noise levels are sufficiently high to interfere with speech, sleep, or normal residential activities. Construction-related hourly average noise levels received at noise-sensitive land uses above 60 dBA during the daytime and 55 dBA at night and at least 5 dBA higher than ambient noise levels, would be considered significant.

### **13.3.2 Impacts and Mitigation Measures**

**Impact 13-1: Potential Exposure of New, Project-Facilitated Residential, Commercial, Office, Retail, Public Facility, and Open Space Development to Excessive Environmental Noise.** Project-facilitated noise-sensitive development could be exposed to noise levels exceeding state- and City-adopted noise and land use compatibility standards. Project-facilitated noise-sensitive uses could also be exposed to vibration from sources such as BART and railroad trains. In addition, new noise-generating uses facilitated by the project may expose noise-sensitive uses to additional noise. Possible noise exposure exceeding State and City of Richmond standards represents a ***potentially significant impact*** (see criteria (a) through (c) in section 13.3.1, "Significance Criteria," above).

The proposed project would facilitate the development or revitalization of noise-sensitive residential uses within the Merged Project Area. The compatibility of these proposed land uses with the existing and projected noise environments in the Merged Project Area has been evaluated based on the guidelines identified in Table 13.3. Low-density residential development is considered normally acceptable in noise environments of 60 L<sub>dn</sub> or less. Medium- and high-density residential developments are considered normally acceptable in noise environments of 65 L<sub>dn</sub> or less. Less noise-sensitive uses, such as office uses, recreational uses such as playgrounds or parks, or public and institutional uses such as schools or churches, are considered normally acceptable in noise environments of 70 L<sub>dn</sub> or less. Industrial uses are generally compatible with noise environments of 75 L<sub>dn</sub> or less.

Exposure of project-related noise-sensitive residential, recreational, and public facility development to noise levels exceeding "normally acceptable" levels would represent a ***potentially significant impact***. Also, noise-producing development facilitated by the project could generate noise levels at adjacent noise-sensitive uses that would exceed the standards established by the City and State.

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<sup>1</sup>Richmond Redevelopment Areas Merger and Amendments Draft EIR, February 1999, page 167; and Proposed Richmond Redevelopment Plan Amendment Program Draft EIR, March 2005, page 13-10.

**Mitigation 13-1.** New noise-sensitive uses developed adjacent to existing noise-producing uses shall be designed to control noise to meet the noise performance standards contained in section 9.52.100 of the Richmond Municipal Code. Noise studies are required in such circumstances to demonstrate compliance with these standards.

To adequately mitigate potential noise impacts on future new residential uses, noise attenuation features shall be incorporated into the new construction to reduce interior noise to 45  $L_{dn}$  or less and exterior noise to 60  $L_{dn}$  or less for new single-family development and 65  $L_{dn}$  or less for new multi-family development. Multi-family residential development proposed where the  $L_{dn}$  exceeds 60 dB would also be regulated by the State of California Building Code. The design for such projects must incorporate the necessary noise control treatments to reduce interior noise to 45  $L_{dn}$  or less in interior habitable spaces. Where the existing or projected exterior  $L_{dn}$  is 65 dB or less, standard construction is normally sufficient. Where the existing or projected exterior noise level is 65 to 75  $L_{dn}$ , additional controls, such as sound rated windows, doors, and wall construction, may be necessary. A report shall be submitted with the building plans for all Redevelopment Agency assisted residential projects proposed for location in existing or projected exterior noise environments of 60 dB  $L_{dn}$  or greater, describing to City satisfaction the noise control measures that have been incorporated into the design to meet the 45  $L_{dn}$  interior noise limit.

Exterior noise levels at project-assisted new public and institutional facilities, offices, and open space development shall be limited to an exterior noise level of 70  $L_{dn}$  or less. Permissible interior noise levels at these use types are a function of the use of the space and may require noise insulation features to be included in the design of the project to maintain an acceptable interior environment.

Construction of sound walls may also be warranted to shield outdoor activity areas from roadway traffic noise. Barriers 10 to 16 feet high are normal along highways and railroad lines, and barriers 6 to 10 feet high are normal along local streets depending upon site planning and noise exposure. The final location and heights of barriers should be determined during development of project-specific site plans.

Activities proposed by the redevelopment plan amendment include extension of sound walls. This aspect of the project may assist in mitigating noise impacts.

Noise and vibration generated by railroad trains or BART should be studied on a project-by-project basis for vibration-sensitive land uses planned adjacent to these facilities.

New noise-generating uses facilitated by the project will be subject to the noise performance standards established in section 9.52.100 of the Richmond Municipal

**(continued)**

**Mitigation 13-1 (continued):**

Code. In accordance with Richmond General Plan policies, noise studies shall be conducted for proposed noise-generating uses to demonstrate compliance with these standards.

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

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**Project-Facilitated and Cumulative Traffic Noise Impacts.** Projected cumulative growth in the Merged Project Area vicinity, including growth facilitated by the redevelopment program, would result in increased traffic volumes along major roadways and local streets, as described in chapter 6, Transportation and Circulation, of this EIR. These traffic volume increases could result in increased traffic-generated noise levels at some "sensitive receptor locations" (e.g., where significantly affected roadways are adjacent to residential, school, hospital, or other noise-sensitive uses). In areas where ambient noise levels are determined primarily by traffic noise, traffic volumes would have to double for noise levels to increase by 3 dBA, the threshold of audibility for the human ear. The specific contribution of project-facilitated growth to future cumulative traffic noise increases is not known. Project-facilitated growth in the Merged Project Area must, by law, be consistent with City and State standards, policies and regulations. The City-certified General Plan EIR concludes that implementation of the noise policies and associated implementation programs and regulations included in the adopted General Plan and Municipal Code (see sections 13.2.1, "City of Richmond General Plan," and 13.2.2, "City of Richmond Municipal Code," herein, for a listing of these noise mitigation provisions) would mitigate this cumulative noise impact to a ***less-than-significant level***.<sup>1</sup>

**Mitigation.** No additional project-related impact has been identified; no additional mitigation is required.

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**Impact 13-2: Project-Facilitated Construction Noise and Vibration.**

Construction activities facilitated by the project could include site grading and preparation, building demolition, building modification and rehabilitation, construction of new buildings, and installation of utilities. The noise and vibration effects of these future construction activities would depend upon the amount of activity, the type of construction equipment used, the noise control measures used, the proximity to noise-sensitive activities, and the timing and duration of noise-generating or vibration-generating activities. Residential and other noise-sensitive uses located adjacent to project-facilitated construction activities could be exposed to noise and/or vibration levels that would interfere with normal activities. This would constitute a ***potentially significant impact*** (see criterion (d) in section 13.3.1, "Significance Criteria," above).

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<sup>1</sup>City of Richmond General Plan and Zoning Ordinance Updates Program EIR; August 17, 1993; page IV.L.11.

Construction activities generate considerable amounts of noise, especially during the demolition phase and the construction of project infrastructure when heavy equipment is used. The effects of noise resulting from construction depend on the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise-sensitive receptors. Construction noise would occur in phases, including demolition of existing structures, grading and excavation, construction of foundations (possibly including pile driving), erection of new structures, and finishing.

Tables 13.4 and 13.5 show typical noise levels generated by construction equipment at a distance of 50 feet from the source and at a distance of 50 feet from the construction activity center, respectively. As shown in Table 13.4, the highest maximum noise levels generated by construction would typically range from about 90 to 105 dBA at a distance of 50 feet from the noise source. These noise levels primarily result from pile drivers, jack hammers, and other impulsive pieces of equipment. As shown in Table 13.5, typical hourly average construction-generated noise levels are about 81 dBA to 89 dBA measured at a distance of 50 feet from the center of the site during busy construction periods. Construction-generated noise levels drop off at a rate of about 6 dBA per doubling of distance between the source and receptor. Shielding by buildings or terrain result in much lower construction noise levels at distant receptors.

Construction noise impacts primarily result when construction occurs during noise-sensitive times of the day (early morning, evening, or nighttime hours), or in areas immediately adjoining noise-sensitive land uses, or when construction lasts for extended periods of time. Limiting construction to daytime hours is often a simple method to reduce the potential for noise impacts. In areas immediately adjacent to construction, controls such as constructing temporary noise barriers and using "quiet" construction equipment can also reduce the potential for noise impacts. Typically, noise generated by construction is temporary and intermittent (generally less than one construction season in duration).

Table 13.4  
**CONSTRUCTION EQUIPMENT NOISE LEVEL RANGES**

	A-weighted Noise Level (dBA) At 50 Feet					
	60	70	80	90	100	110
<b>Earth Moving:</b>						
Compacters (Rollers)		70	80	90		
Front Loaders		70	80	90	100	
Backhoes		70	80	90	100	
Bulldozers		70	80	90	100	
Scrapers, Graders		70	80	90	100	
Pavers			80	90		
Trucks		70	80	90	100	
<b>Materials Handling:</b>						
Concrete Mixers		70	80	90		
Concrete Pumps		70	80			
Cranes (Movable)		70	80	90	100	
Cranes (Derricks)				90		
<b>Stationary:</b>						
Pumps		70	80			
Generators		70	80			
Compressors		70	80	90		
<b>Impact Equipment:</b>						
Pneumatic Wrenches			80			
Jackhammers and Rock Drills		70	80	90	100	
Pile Drivers (Peak)				90	100	
<b>Other:</b>						
Vibrator		70	80			
Saws		70	80	90	100	

Source: Handbook of Noise Control, Cyril M. Harris, 1979.

Table 13.5  
TYPICAL NOISE LEVEL RANGES AT 50 FEET, L<sub>eq</sub> IN dBA, AT CONSTRUCTION SITES

	<u>Domestic Housing</u>		<u>Office Building, Hotel, Hospital, School, Public Works</u>		<u>Industrial, Parking Garage, Religious, Amusement and Recreation, Store, Service Station</u>		<u>Public Works, Roads and Highways, Sewers and Trenches</u>	
	<u>I</u>	<u>II</u>	<u>I</u>	<u>II</u>	<u>I</u>	<u>II</u>	<u>I</u>	<u>II</u>
Ground Clearing	83	83	84	84	84	83	84	84
Excavation	88	75	89	79	89	71	88	78
Foundations	81	81	78	78	77	77	88	88
Erection	81	65	87	75	84	72	79	78
Finishing	88	72	89	75	89	74	84	84

SOURCE: U.S. EPA, Legal Compilation on Noise, Vol. 1, p. 2-104, 1973.

I - All pertinent equipment present at site.

II - Minimum required equipment present at site.

**Mitigation 13-2.** To reduce the noise impacts from project-related construction activities, the following measures shall be implemented as a condition of Redevelopment Agency assistance at all construction sites within the Merged Project Area:

- (1) *Construction Scheduling.* Limit noise-generating construction activity to between the hours of 7:00 AM to 7:00 PM, Monday through Friday, and 8:30 AM to 6:00 PM on Saturdays, Sundays, and national holidays (Richmond Municipal Code section 9.52.090).
- (2) *Construction Equipment Mufflers and Maintenance.* Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- (3) *Equipment Locations.* Locate stationary noise-generating equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction project site.
- (4) *Construction Traffic.* Route all construction traffic to and from the site via designated truck routes where possible. Prohibit construction-related heavy truck traffic in residential areas where feasible.
- (5) *Quiet Equipment Selection.* Use quiet construction equipment, particularly air compressors, wherever possible.
- (6) *Noise Disturbance Coordinator.* For larger construction projects, the City may choose to require project designation of a "Noise Disturbance Coordinator" who would be responsible for responding to any local complaints about construction noise. The Disturbance Coordinator would determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and institute reasonable measures to correct the problem. Conspicuously post a telephone number for the Disturbance Coordinator at the construction site and include it in the notice sent to neighbors regarding the construction schedule. (The City should be responsible for designating a Noise Disturbance Coordinator and the individual project sponsor should be responsible for posting the phone number and providing construction schedule notices.)

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



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## 14. AIR QUALITY

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This EIR chapter describes the impacts of the proposed redevelopment plan amendment program and the project-facilitated buildout scenario on local and regional air quality. The chapter was prepared using methodologies and assumptions recommended within the air quality impact assessment guidelines of the Bay Area Air Quality Management District (BAAQMD).<sup>1</sup> In keeping with these guidelines, the chapter describes existing air quality, potential short-term construction-related impacts, potential direct and indirect long-term emissions associated with the project-facilitated buildout scenario, the impacts of these emissions on both the local and regional scale, and mitigation measures warranted to reduce or eliminate any identified significant impacts.

### 14.1 SETTING

#### 14.1.1 Air Basin Characteristics

The amount of a given pollutant in the atmosphere is determined by the amount of pollutant released and the atmosphere's ability to transport and dilute the pollutant. The major determinants of transport and dilution are wind, atmospheric stability, terrain and, for photochemical pollutants, sunshine.

The Merged Project Area is located in western Contra Costa County. Its location near San Francisco and San Pablo bays has a major influence on the climate and air quality of the area. Sea breezes dominate the area during the spring and summer months. The dominance of the sea breeze results in a mild, relatively cool climate. Low clouds and fog are common in spring and summer.

The prevailing wind direction is from the southwest. Average wind speed in downtown Richmond is 7.3 miles per hour annually, with a relatively high frequency of calm conditions (about 28 percent of the time on an annual basis).<sup>2</sup> The Merged Project Area in general often experiences persistent afternoon winds in the spring and summer months.

The pollution potential of the Merged Project Area is relatively low compared to other parts of the Bay Area. Ventilation is relatively good, and there is limited transport of pollutants from other upwind urban areas. However, during periods of light or calm winds, which typically occur in the fall and winter months, the entire Bay Area air basin is subject to stagnation and poor air quality.

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<sup>1</sup>Bay Area Air Quality Management District, BAAQMD CEQA Air Quality Guidelines, April 1996 (Revised December 1999).

<sup>2</sup>California Department of Water Resources, Wind In California, Bulletin 185, 1978.

### **14.1.2 Air Pollutants and Ambient Standards**

(a) **“Criteria” Pollutants.** Both the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) have established ambient air quality standards for common pollutants. Individuals vary in their sensitivity to air pollutants, so the national and state standards have been set at levels that protect groups that are more sensitive (e.g., asthmatics).

National ambient air quality standards (NAAQS) were established by the federal Clean Air Act of 1970 (amended in 1977 and 1990) for six "criteria" pollutants. These criteria pollutants are carbon monoxide (CO), ozone (O<sub>3</sub>), nitrogen dioxide (NO<sub>2</sub>), particulates (since changed to inhalable and fine particulate matter--PM<sub>10</sub> and PM<sub>2.5</sub>), sulfur dioxide (SO<sub>2</sub>), and lead (Pb). These are considered the most prevalent air pollutants known to be hazardous to human health. Table 14.1 presents a summary description of these six criteria pollutants and their potential health effects. Table 14.2 summarizes the federal and California state ambient air quality standards for important pollutants.

(b) **Toxic Air Contaminants.** In addition to the six "criteria" pollutants, toxic air contaminants (TACs) are another class of pollutants that are of concern. TACs are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer or serious illness) and include, but are not limited to, the criteria air pollutants listed above. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., benzene near a freeway). Because chronic exposure to TACs can result in adverse health effects, TACs are regulated at the regional, state, and federal level. The identification, regulation, and monitoring of TACs is relatively new compared to that for criteria air pollutants. Unlike criteria pollutants, there are no established ambient standards for TACs. TACs are regulated on the basis of risk rather than specification of safe levels of contamination.

The major source of TACs contributing to ambient risk in the Bay Area is motor vehicles (45 percent of all sources), while the chemicals that contribute most to the risk due to measured ambient levels are benzene (35 percent) and 1,3 Butadiene (18 percent) (BAAQMD, 2002). The BAAQMD's Toxic Air Contaminant Control Program, Annual Report 2002 lists the major sources of TACs in the City of Richmond, with emissions quantified by major facilities. Sources of TACs cited in this report include refineries, cleaners, auto body shops, and other industrial processes. The health risk assessments prepared for the largest TAC sources--ARCO, Chevron USA, and Pacific Hard Chrome--show that health risks are below the standard of ten in one million (BAAQMD, 2002).

Diesel exhaust remains as a predominant TAC source in Richmond and in the urban area in general. According to the CARB, diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB, and are listed as carcinogens either under the state's Proposition 65 or under the federal Hazardous Air Pollutants programs. California has adopted a comprehensive diesel risk reduction program. The EPA and CARB have adopted low sulfur diesel fuel standards that will reduce diesel particulate matter substantially. These standards went into effect in June 2006.

Table 14.1

**MAJOR CRITERIA AIR POLLUTANTS AND HEALTH EFFECTS SUMMARY**

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<u>Pollutant</u>	<u>Characteristics</u>	<u>Health Effects</u>	<u>Major Sources</u>
Ozone (O <sub>3</sub> )	A highly reactive photochemical pollutant created by the action of sunshine on ozone precursors (primarily reactive organic gases and oxides of nitrogen). Often called photochemical smog.	<ul style="list-style-type: none"> <li>▪ Eye irritation</li> <li>▪ Respiratory function impairment</li> </ul>	The major sources of ozone precursors are combustion sources such as factories and automobiles, and evaporation of solvents and fuels.
Carbon Monoxide (CO)	An odorless, colorless gas that is highly toxic. It is formed by the incomplete combustion of fuels.	<ul style="list-style-type: none"> <li>▪ Impairment of oxygen transport in the bloodstream</li> <li>▪ Aggravation of cardiovascular disease</li> <li>▪ Fatigue, headache, confusion, dizziness</li> <li>▪ Can be fatal in the case of very high concentrations</li> </ul>	Automobile exhaust, combustion of fuels, combustion of wood in woodstoves and fireplaces.
Nitrogen Dioxide (NO <sub>2</sub> )	Reddish-brown gas that discolors the air, formed during combustion.	<ul style="list-style-type: none"> <li>▪ Increased risk of acute and chronic respiratory disease</li> </ul>	Automobile and diesel truck exhaust, industrial processes, fossil-fueled power plants.
Sulfur Dioxide (SO <sub>2</sub> )	A colorless gas with a pungent, irritating odor.	<ul style="list-style-type: none"> <li>▪ Aggravation of chronic obstruction lung disease</li> <li>▪ Increased risk of acute and chronic respiratory disease</li> </ul>	Diesel vehicle exhaust, oil-powered power plants, industrial processes.
Particulate Matter (PM <sub>10</sub> and PM <sub>2.5</sub> )	Solid and liquid particles of dust, soot, aerosols, and other matter that are small enough to remain suspended in the air for a long period of time.	<ul style="list-style-type: none"> <li>▪ Aggravation of chronic disease and heart/lung disease symptoms</li> </ul>	Combustion, automobiles, field burning, factories and unpaved roads. Also a result of photochemical processes.
Lead (Pb)	Component of particulate matter. Levels have dropped 98 percent in last 30 years due to elimination of lead from gasoline.	<ul style="list-style-type: none"> <li>▪ Learning disabilities</li> <li>▪ Brain and kidney damage</li> <li>▪ Children particularly susceptible</li> </ul>	Leaded gasoline (no longer allowed), smelters, resource recovery.

SOURCE: Wagstaff and Associates, 2009.

Table 14.2  
**FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS**

<u>Pollutant</u>	<u>Averaging Time</u>	<u>Federal Primary Standard<sup>1</sup></u>	<u>State Standard<sup>2</sup></u>
Ozone (O <sub>3</sub> )	1-Hour	---	0.09 PPM
	8-Hour	0.075 PPM	0.70 PPM
Carbon Monoxide (CO)	8-Hour	9.0 PPM	9.0 PPM
	1-Hour	35.0 PPM	20.0 PPM
Nitrogen Dioxide (NO <sub>2</sub> )	Annual Arithmetic Mean	0.053 PPM	0.30 PPM
	1-Hour	---	0.18 PPM
Sulfur Dioxide (SO <sub>2</sub> )	Annual Arithmetic Mean	0.03 PPM	---
	24-Hour	0.14 PPM	0.04 PPM
	1-Hour	---	0.25 PPM
Particulates (PM <sub>10</sub> )	Annual Arithmetic Mean	---	20 ug/m <sup>3</sup>
	24-Hour	150 ug/m <sup>3</sup>	50 ug/m <sup>3</sup>
Particulates (PM <sub>2.5</sub> )	Annual Arithmetic Mean	15 ug/m <sup>3</sup>	12 ug/m <sup>3</sup>
	24-Hour	35 ug/m <sup>3</sup>	---
Lead (Pb)	3-Month	0.15 ug/m <sup>3</sup>	---
	30-Day	--	1.5 ug/m <sup>3</sup>

SOURCE: California Air Resources Board, Ambient Air Quality Standards (11/17/08)  
 (<http://www.arb.ca.gov/aqs/aaqs2.pdf>).

PPM = Parts Per Million, ug/m<sup>3</sup> = Micrograms Per Cubic Meter

<sup>1</sup> National standards other than for ozone, particulate matter, and those based on annual averages or annual arithmetic means are not to be exceeded more than once a year.

<sup>2</sup> California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, and suspended particulate matter (PM<sub>10</sub>, PM<sub>2.5</sub>, and visibly reducing particles) are values that are not to be exceeded. The standards for lead are not to be equaled or exceeded.

### **14.1.3 Current Air Quality**

The BAAQMD operates a network of monitoring sites throughout the Bay Area. The closest monitoring site to Richmond and the Merged Project Area is located in San Pablo. Table 14.3 summarizes air quality data from this monitoring site during the period 2006-2008 and shows the number of days that the state or federal standard was exceeded for three major pollutants. As shown in the table, the ambient air quality standards were met in the Merged Project Area vicinity during this three-year period.

### **14.1.4 Existing Pollutant Sources and Sensitive Receptors in the Merged Project Area**

The largest existing sources of pollutants within the Merged Project Area are vehicles on the local roadway network. In addition, industrial activities, other businesses, and houses within the area contribute air pollutants through fume-producing industrial and agricultural operations, and combustion of fuels for industrial operations, space heating, and water heating.

"Sensitive receptors" are defined as land uses where sensitive population groups (children, the elderly, the acutely ill, and the chronically ill) are likely to be located. These land uses include schools, playgrounds, child care centers, retirement homes, convalescent homes, hospitals, and medical clinics. There are numerous such "receptors" in the Merged Project Area vicinity that could potentially be affected by air pollution.

## **14.2 PERTINENT PLANS AND POLICIES**

### **14.2.1 National and State Standards**

National ambient air quality standards (NAAQS) were established by the federal Clean Air Act of 1970 (amended 1977 and 1990) for the six "criteria" pollutants described in section 14.1.2 and Table 14.1, above. In addition, the California Clean Air Act of 1988 (amended in 1992) requires attainment of the California ambient air quality standards (CAAQS), which are often more stringent than federal standards. These federal and state standards are summarized in Table 14.2 and in section 14.1.2, above.

The federal Clean Air Act and the California Clean Air Act require that the State Air Resources Board, based on air quality monitoring data, designate portions of the state where the federal or state ambient air quality standards are not met as "nonattainment areas." Because of the differences between the national and state standards, the designation of nonattainment areas is different under the federal and state legislation.

### **14.2.2 Attainment Status**

(a) Federal. The Bay Area is currently a nonattainment area for the federal 1-hour ozone standard. However, in April 2004, the U.S. Environmental Protection Agency (EPA) made a final finding that the Bay Area has attained the federal 1-hour ozone standard. The finding of attainment does not mean the Bay Area has been reclassified as an attainment area for the 1-hour standard. The region must submit a re-designation request to EPA in order to be reclassified as an attainment area.

Table 14.3  
SUMMARY OF AIR QUALITY DATA FOR SAN PABLO, 2006-2008

<u>Pollutant</u>	<u>Standard</u>	<u>Days Exceeding Ambient Standards in:</u>		
		<u>2006</u>	<u>2007</u>	<u>2008</u>
Ozone (O <sub>3</sub> )	Fed. 8-Hour	0	0	0
Ozone (O <sub>3</sub> )	State 1-Hour	0	0	0
Ozone (O <sub>3</sub> )	State 8-Hour	0	0	0
Carbon Monoxide (CO)	State/Fed. 8-Hour	0	0	0
Nitrogen Dioxide (NO <sub>x</sub> )	State 1-Hour	0	0	0

SOURCE: California Air Resources Board, Aerometric Data Analysis and Management (ADAM), 2009 (<http://www.arb.ca.gov/adam/cgi-bin/db2www/adamtop4b.d2w/start>).

The EPA has designated the San Francisco Bay Area as a nonattainment area for the federal 8-hour ozone standard and as "attainment/unclassifiable" with respect to the federal PM<sub>2.5</sub> standards.

(b) State. Under the California Clean Air Act, Contra Costa County is a nonattainment area for ozone and PM<sub>10</sub>. The county is either an attainment area or unclassified for other pollutants. The California Clean Air Act requires local air pollution control districts to prepare air quality attainment plans. These plans must provide for district-wide emission reductions of five percent per year averaged over consecutive three-year periods or if not, provide for adoption of "all feasible measures on an expeditious schedule."

### **14.2.3 Applicable Regional Air Quality Plan**

The California Clean Air Act requires regional air pollution control districts to prepare air quality attainment plans. These plans must provide for district-wide emission reductions of five percent per year averaged over consecutive three-year periods or, if not, provide for adoption of "all feasible measures on an expeditious schedule."

The BAAQMD is the regional agency responsible for devising and implementing these plans. While air quality plans exist for ozone, none exists (or is currently required) for PM<sub>10</sub>. The Revised San Francisco Bay Area Ozone Attainment Plan for the 1-Hour National Ozone

Standard<sup>1</sup> is the current federally mandated ozone air quality plan (required under the federal Clean Air Act). The state-mandated regional air quality plan is the Bay Area 2005 Ozone Strategy.<sup>2</sup> These plans contain mobile source controls, stationary source controls, and transportation control measures to be implemented in the region to attain the state and federal ozone standards within the Bay Area Air Basin.

#### **14.2.4 City of Richmond General Plan**

The Richmond General Plan *Open Space and Conservation Element* contains the following policies and action statements that, in governing all project-related redevelopment activities and project-related development, would serve to mitigate associated adverse air quality impacts:

- *Only approve projects that will comply with applicable regulations and will not exceed air quality standards. (Policy OSC-P.1) [Note: This policy has been interpreted by City staff to apply to individual, site-specific projects only.]*
- *New developments should not subject residents to objectionable odors or other nuisances (e.g., dust). (Policy OSC-P.2)*
- *Ensure that developers and businesses work with regional, state, and federal agencies to meet air quality standards. (Policy OSC-P.3)*
- *City will require individual developers to closely coordinate with the BAAQMD in implementing applicable new stationary source control measures as proposed in the most recent CAP, while conforming with existing BAAQMD rules and regulations regarding indirect sources. (Programs and Actions OSC-P.1)*

It is not expected that the policies listed above will change substantially with the anticipated update of the General Plan now underway.

### **14.3 IMPACTS AND MITIGATION MEASURES**

#### **14.3.1 Significance Criteria**

Based on the CEQA Guidelines,<sup>3</sup> the proposed redevelopment plan amendment program and/or its anticipated growth effects would be considered to have a significant impact if they would:

- (a) conflict with or obstruct implementation of the applicable air quality plan;
- (b) violate any air quality standard or contribute substantially to an existing or projected air quality violation;

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<sup>1</sup>Bay Area Air Quality Management District, Revised San Francisco Bay Area Ozone Attainment Plan for the 1-Hour National Ozone Standard, October 24, 2001.

<sup>2</sup>Bay Area Air Quality Management District, Bay Area 2005 Ozone Strategy, January 4, 2006.

<sup>3</sup>CEQA Guidelines, Appendix G, Items III(a) through III(e).

- (c) result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- (d) expose sensitive receptors to substantial pollutant concentrations; or
- (e) create objectionable odors affecting a substantial number of people.

In addition, for construction-period air emissions impacts, the BAAQMD significance threshold for construction dust impact is based on the appropriateness of construction dust controls. The BAAQMD guidelines provide feasible control measures for construction emission of PM<sub>10</sub>. If the appropriate construction controls are to be implemented, then air pollutant emissions for construction activities would be considered less-than-significant.

### **14.3.2 Short-Term Construction Period Air Quality Impacts**

**Impact 14-1: Construction-Related Air Quality Impacts.** Demolition or construction activities permitted and/or facilitated by the proposed project may generate construction-period exhaust emissions and fugitive dust that could temporarily but noticeably affect local air quality. This would represent a ***potentially significant impact*** (see criteria (c), (d), and (e) in section 14.3.1, "Significance Criteria," above).

Construction activities associated with project-facilitated public and private development in the Merged Project Area may include building demolition, building renovation or modification, grading, new building construction, and paving. Such construction would generate pollutants intermittently. Generally, the most substantial air pollutant emissions would be dust generated from building demolition or site grading. The physical demolition of existing structures and other infrastructure can generate substantial dust. In addition to the dust created during demolition, substantial dust emissions could be created as debris is loaded into trucks for disposal. Without adequate dust control measures, visible dust clouds extending beyond the construction or demolition site could occur.

Wind erosion and disturbance to exposed (graded) ground areas would also be sources of dust emissions. Dust can continue to affect local air quality during construction. Construction activities can generate exhaust emissions from vehicles/equipment and fugitive particulate matter emissions that would affect local air quality. Construction activities are also a source of organic gas emissions. Solvents in adhesives, non-waterbase paints, thinners, some insulating materials, and caulking materials can evaporate into the atmosphere and participate in the photochemical reaction that creates urban ozone. Asphalt used in paving is also a source of organic gases for a short time after its application.

If uncontrolled, such emissions could lead to both health and nuisance impacts. Although temporary, such effects would represent a *potentially significant adverse impact* on local air quality.

**Mitigation 14-1.** For all Agency-assisted discretionary grading, demolition, or construction activity in the Merged Project Area, the City shall require implementation of the following dust control measures by construction contractors, where applicable:

During ***demolition*** of existing structures:

- Water active demolition areas to control dust generation during demolition of structures and break-up of pavement.
- Cover all trucks hauling demolition debris from the site.
- Use dust-proof chutes to load debris into trucks whenever feasible.

During ***all construction phases***:

- Water all active construction areas at least twice daily.
- Water or cover stockpiles of debris, soil, sand, or other materials that can be blown by the wind.
- Cover all trucks hauling soil, sand, and other loose materials, or require all trucks to maintain at least two feet of freeboard.
- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.
- Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites.
- Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.
- Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).
- Enclose, cover, water twice daily, or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.).
- Limit traffic speeds on unpaved roads to 15 miles per hour.

**(continued)**

**Mitigation 14-1 (continued):**

- Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- Replant vegetation in disturbed areas as quickly as possible.

The above measures are BAAQMD-identified "feasible control measures for construction emissions of PM<sub>10</sub>." Implementation of these measures would reduce the construction-related air quality impact of the project to a ***less-than-significant level***.

**14.3.3 Long-Term Local Air Quality Effects**

**Changes in Local Carbon Monoxide Levels.** Development activity facilitated by the redevelopment plan amendment would generate new vehicle trips. Along local streets, these new trips would affect concentrations of carbon monoxide. Within the regional air basin, these new trips would add to the pollution burden. Nevertheless, future local carbon monoxide levels near worst-case intersections in the Merged Project Area under the "with project" year 2030 growth scenario would be well within state and federal air quality standards.<sup>1</sup> This impact would therefore be considered ***less than significant***.

At the local level, the pollutant of greatest concern is carbon monoxide. Concentrations of carbon monoxide are greatest near intersections and roadways with congested traffic. Such carbon monoxide emissions can be a problem in wintertime when stagnant meteorological conditions occur (i.e., very little vertical or horizontal mixing of air in the lower atmosphere).

Existing and future carbon monoxide levels under the year 2030 "with project" scenario would be below the state and federal air quality standards, and the project's impact on local carbon monoxide levels is considered ***less than significant***.

**Mitigation for Changes in Local Carbon Monoxide Levels.** No significant local carbon monoxide impact has been identified; no mitigation is required.

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<sup>1</sup>City of Richmond, Richmond Redevelopment Areas Merger and Amendments Final EIR, State Clearinghouse #9872020, May 1999; page 154.

#### **14.3.4 Long-Term Regional Air Quality Effects**

**Impact 14-2: Long-Term Regional Air Emissions Increases.** Future traffic increases under the project-facilitated, Richmond General Plan-based development scenario would generate regional emissions increases which would exceed the applicable thresholds of significance for reactive organic gases (ROG), nitrous oxide (NO<sub>x</sub>), and particulate matter (PM<sub>10</sub>). This effect is considered to be a **significant project and cumulative impact** (see criteria (a) through (d) in section 14.3.1, "Significance Criteria," above).

The proposed project is expected to induce an increased rate and amount of growth within the Merged Project Area. Resultant additional vehicle trips to and from the Merged Project Area would generate new mobile air pollutant emissions increases affecting the overall San Francisco Bay air basin.

Guidelines for the evaluation of project impacts issued by the BAAQMD consider emission increases of ozone precursors and other regional pollutants to be significant if they exceed 80 pounds per day. As illustrated by the City-certified 1994 City of Richmond General Plan and Zoning Ordinance Updates Program EIR,<sup>1</sup> increases in vehicle trips associated with General Plan buildout, including growth facilitated by the redevelopment project, are expected to generate increases over existing conditions in reactive organic gases, oxides of nitrogen, and particulate matter that would exceed the thresholds of significance used by the BAAQMD.

**Mitigation 14-2.** The City shall apply the following emissions control strategies where applicable to project-facilitated discretionary residential, commercial, and industrial development activities within the Merged Project Area in order to reduce overall traffic generation:

- Where practical, future development proposals shall include physical improvements, such as sidewalk improvements, landscaping, and the installation of bus shelters and bicycle parking, that would act as incentives for pedestrian, bicycle, and transit modes of travel.
- New or modified roadways should include bicycle lanes where reasonable and feasible.
- Where practical, employment-intensive development proposals (e.g., office, retail, R&D) shall include measures to encourage use of public transit, ridesharing, van pooling, use of bicycles, and walking, as well as to minimize single passenger motor vehicle use.

**(continued)**

<sup>1</sup>City of Richmond General Plan and Zoning Ordinance Updates Program Environmental Impact Report, Draft, August 17, 1993; pages IV.K.14 through IV.K.16.

**Mitigation 14-2 (continued):**

- Office land uses would generate home-to-work commute trips that are most amenable to Transportation Demand Management (TDM) programs. As a condition of approval, all Agency-assisted discretionary office development projects within the Merged Project Area of 10,000 square feet (approximately 25 employees) or greater should implement a TDM program, including vehicle use reduction strategies such as the following:
  - a carpool/vanpool program, e.g., carpool ride-matching for employees, assistance with vanpool formation, provision of vanpool vehicles, etc.;
  - a transit use incentive program for employees, such as on-site distribution of passes and/or subsidized transit passes for local transit systems;
  - preferential parking for electric or alternatively fueled vehicles;
  - a guaranteed ride home program;
  - a flextime policy;
  - on-site child care;
  - showers and lockers for employees bicycling or walking to work;
  - secure and conveniently located bicycle parking and storage for workers; and/or
  - a parking cash-out program for employees (where non-driving employees receive transportation allowance equivalent to the value of subsidized parking).
  
- The City shall adopt policies and programs that will implement the "smart-growth" strategies of the Smart Growth Strategy/Regional Livability Footprint Project developed by the Association of Bay Area Governments and other regional agencies.

Implementation of these measures would assist in reducing the project-related and cumulative impacts on long-term regional ROG, NO<sub>2</sub>, and PM<sub>10</sub> emissions levels by perhaps 10 to 20 percent, but may not reduce these impacts to a less-than-significant level. The anticipated project and cumulative effects on ROG, NO<sub>2</sub>, and PM<sub>10</sub> emissions levels would therefore, as already indicated in the City-certified 1994 General Plan and Zoning Ordinance Updates Program EIR (Air Quality Impact 4), represent a ***significant unavoidable impact***.

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## 15. HAZARDS AND HAZARDOUS MATERIALS

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This EIR chapter describes known and potentially hazardous materials conditions in the vicinity of the Merged Project Area, related potentially significant adverse public health impacts anticipated as a result of the proposed project, and associated mitigation needs.

### 15.1 SETTING

#### 15.1.1 General Concerns

For purposes of this EIR, "hazardous materials" are defined as substances with certain chemical and physical properties that could pose a substantial present or future hazard to human health or the environment if improperly handled, stored, disposed, or otherwise managed. If improperly handled, hazardous materials can result in public health hazards through human contact with contaminated soils or groundwater, or through airborne releases in vapors, fumes, or dust. There is also the potential for accidental or unauthorized releases of hazardous materials that would pose a public health concern.

Construction workers typically have the greatest risk of exposure to contaminated soil or groundwater. Accidents or spills during transport of hazardous materials or wastes can also expose the general public and the environment to these substances. If contamination at a site remains undetected, workers and the public may be at risk of exposure if precautions are not taken during site development.

#### 15.1.2 Soil/Groundwater Contamination Potential

The Merged Project Area and surrounding properties contain numerous sites where hazardous materials are generated, stored, handled, and/or treated, including sites of existing and past industrial uses, gas stations, auto repair enterprises, and other land uses that use, store, or dispose of hazardous materials and wastes.<sup>1</sup> It is likely that some underground tanks in the project vicinity have leaked. It is also possible that fuel spills have occurred around associated above- or below-grade fuel storage tanks. Both types of occurrences could result in contamination of soil and/or groundwater in the vicinity. In addition, past transport, handling,

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<sup>1</sup>Hazardous materials and waste conditions in the Merged Project Area and/or the surrounding vicinity are described in the following documents, among others: City of Richmond General Plan, Volume Two (Technical Appendix) (August 1994); North Richmond Shoreline Specific Plan EIR (1992); Knox Freeway/Cutting Boulevard Corridor Specific Plan EIR (1990); Preliminary Report on the Proposed Amendments to the Redevelopment Plans Including the Merger of the Richmond Redevelopment Projects (1999); Final EIS/EIR for the Disposal and Reuse of Fleet and Industrial Supply Center, Naval Fuel Depot Point Molate (February 2002); Revised Draft Remedial Action Plan, Terminal One Site (May 2004); and Updated Proposed Remedial Action Plan, Terminal One Site (October 2004). In addition, the City of Richmond Planning Department maintains a map and list of facilities that generate, store, handle, and/or treat hazardous materials, indicating a number of such facilities in and near the Merged Project Area.

and storage of fuels and other hazardous materials associated with such uses may have resulted in soil or groundwater contamination in the project vicinity. If fuel spills or leaks have occurred and the soil or groundwater is contaminated, project construction workers could be exposed to contamination in the short term during site preparation work.

### **15.1.3 Asbestos, PCB, and Lead-Based Paint Potential**

Existing buildings in the Merged Project Area could contain hazardous materials such as asbestos, polychlorinated biphenyls (PCBs), and/or lead-based paint.

(a) Asbestos. The adverse health effects associated with asbestos exposure have been extensively studied. Studies have demonstrated that inhalation of asbestos fibers may lead to increased risk of developing respiratory or abdominal cancers. There is no known safe level of exposure.

The presence of asbestos in a building does not necessarily mean that the building poses a health hazard. In many cases, asbestos within buildings is inaccessible or sealed within another material, and thus unable to cause a health hazard. However, asbestos fibers can be released during building renovation or demolition, unless proper precautions are taken.

The removal, handling, transport, and disposal of asbestos are heavily regulated at the federal, state, and local levels. These regulations are designed to minimize any exposure of on-site employees (e.g., construction workers) and the general public to asbestos. The U.S. Environmental Protection Agency (EPA) provides asbestos standards. The federal Occupational Safety and Health Administration (OSHA) and its state counterpart, CalOSHA, regulate various aspects of asbestos removal, handling, and disposal to ensure worker safety. Transport and disposal of asbestos-containing material is also regulated. (See further discussion under section 15.2.3, "Regulation of Hazardous Building Components," below.)

(b) PCBs. PCBs are another potentially hazardous class of compounds commonly found in the electrical transformers in older commercial buildings. While manufacture of PCBs has been banned since 1977, some older pieces of equipment may still contain PCBs.

(c) Lead-Based Paint. Lead is a heavy, toxic metal. Lead-based paint was commonly used before 1960 and banned in 1979. It is assumed to be present in many older buildings in the Merged Project Area.

### **15.1.4 Other Hazards Due to Existing Industrial Uses**

Other hazards created by existing industrial uses include the risk of explosion and fire from industrial accidents. In response to one such area of risk, the City has delineated a "flammable risk zone" in the vicinity of the Chevron refinery located in western Richmond immediately north of Interstate 580 and the Richmond-San Rafael Bridge toll plaza. The flammable risk zone encompasses a 1.3-mile radius and includes portions of the Merged Project Area located in central Richmond. The zone extends into parts of Point Molate, but does not include the Point San Pablo portions of the Merged Project Area. The delineation is intended for public disclosure and emergency instruction/evacuation planning purposes.

## 15.2 PERTINENT PLANS AND POLICIES

### 15.2.1 Regulatory Agencies

The following agencies have regulatory authority for the handling and management of hazardous materials/wastes within Richmond.

(a) Environmental Protection Agency. The Environmental Protection Agency (EPA), Region IX, regulates chemical and hazardous materials use, storage, treatment, handling, transport, and disposal practices; protects workers and the community (along with CalOSHA--see below); and integrates the federal Clean Water Act and Clean Air Act into California legislation.

(b) Federal Occupational Health and Safety Administration. The federal Occupational Health and Safety Administration (OSHA) establishes and enforces regulations related to health and safety of workers exposed to toxic and hazardous materials. In addition, OSHA sets health and safety guidelines for construction activities and manufacturing facility operations.

(c) California Occupational Safety and Health Administration. The California Occupational Safety and Health Administration (CalOSHA) is responsible for promulgating and enforcing health and safety standards and implementing federal OSHA laws.

(d) State of California Water Quality Control Board. The Regional Water Quality Control Board (RWQCB), San Francisco Region, protects surface and groundwater quality from pollutants discharged or threatened to be discharged to the waters of the state. The RWQCB issues and enforces National Pollutant Discharge Elimination System (NPDES) permits.

(e) California Department of Toxic Substances Control. The California EPA, Department of Toxic Substances Control (DTSC) regulates hazardous substances and wastes, oversees remedial investigations, protects drinking water from toxic contamination, and warns public exposed to listed carcinogens.

(f) Bay Area Air Quality Management District. The Bay Area Air Quality Management District (BAAQMD) is responsible for the permitting of industrial air emissions and sets and enforces air quality standards.

(g) Contra Costa County. The Contra Costa County Health Services Department, Hazardous Materials Programs Division is a State-Certified Unified Program Agency (CUPA) and implements program elements that address hazardous materials business plans, underground storage tanks, aboveground storage tanks, the risk management prevention program for acutely hazardous materials, Uniform Fire Code requirements, and hazardous waste on-site treatment by generators.<sup>1</sup>

(h) City of Richmond. The City manages hazardous materials pursuant to the General Plan *Safety Element* (including the Addendum to the Safety Element: Hazardous Waste Management Plan) and the City's Zoning Ordinance. Relevant General Plan policies and programs are listed in section 15.2.4 below, and relevant Zoning Ordinance provisions are reviewed in section 15.2.5 below.

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<sup>1</sup>Richmond Redevelopment Areas Merger and Amendments Draft EIR, February 1999, pages 94-95.

### **15.2.2 Polanco Redevelopment Act**

The Polanco Redevelopment Act (AB 3193, Chapter 1113, Statutes of 1990, Polanco), part of the Community Redevelopment Act, was enacted to assist redevelopment agencies in responding to brownfield properties (i.e., properties with environmental contamination) in their redevelopment areas. It prescribes processes for redevelopment agencies to follow when cleaning up a hazardous substance release in a redevelopment project area. It also provides limited immunity from liability for redevelopment agencies and subsequent property purchasers for sites cleaned up under a clean-up plan approved by DTSC or a Regional Water Quality Control Board. The Polanco Redevelopment Act has become a tool widely used by redevelopment agencies to guide and pursue redevelopment of brownfields.<sup>1</sup>

### **15.2.3 Regulation of Hazardous Building Components**

As discussed above, structural building components, particularly in older buildings, sometimes contains hazardous materials such as, among others, asbestos, polychlorinated biphenyls (PCBs), lead, and mercury. These materials are subject to various regulations.

(a) Asbestos. Asbestos is regulated both as a hazardous air pollutant and as a potential worker safety hazard. Regulations formulated by the Bay Area Air Quality Management District (BAAQMD) and CalOSHA restrict asbestos emissions from building demolition and renovation activities and specify safe work practices to minimize the potential for release of asbestos fibers. These regulations prohibit emissions of asbestos from asbestos-related manufacturing, demolition, and construction activities; require medical examinations and monitoring of employees engaged in activities that could disturb asbestos; specify precautions and safe work practices that must be followed to minimize the potential for release of asbestos; and require notice to federal and local government agencies prior to beginning building demolition or renovation activity that could disturb asbestos.

(b) PCBs. DTSC classifies PCBs as a hazardous waste when concentrations exceed 5 parts per million (ppm) in liquids or 50 ppm in non-liquids. PCB production in the United States ended in 1977. Before that time, PCBs were used as coolants and lubricants in transformers, capacitors, and other electrical equipment. For example, televisions, refrigerators, and fluorescent light ballasts manufactured before January 1, 1978 may contain PCBs.<sup>2</sup> Such items (if manufactured before 1978) are regulated as hazardous waste and must be transported and disposed of as hazardous waste.

(c) Lead. CalOSHA standards establish a maximum safe exposure level for various types of construction work where lead exposure may occur, including demolition of structures where materials containing lead are present; removal or encapsulation of materials containing lead; and new construction, alteration, repair, or renovation of structures with materials containing lead. Inspection, testing, and removal of lead-containing building materials must be performed by state-certified contractors who comply with applicable health and safety and hazardous materials regulations. Typically, building materials with lead-based paint attached are not

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<sup>1</sup>California Environmental Protection Agency, <http://www.calepa.ca.gov/Brownfields/PolancoAct.htm>, viewed April 21, 2009.

<sup>2</sup>Department of Health and Human Services, Agency for Toxic Substances & Disease Registry, "Polychlorinated Biphenyls," <http://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=26>, viewed April 21, 2009.

considered hazardous waste unless the paint is chemically or physically removed from the building debris.

(d) Mercury. Spent fluorescent light tubes and bulbs, thermostats, and other electrical equipment may contain heavy metals such as mercury that, if disposed of in landfills, can leach into soil or groundwater. Lighting tubes typically contain concentrations of mercury that may exceed regulatory thresholds for hazardous waste and therefore must be managed in accordance with hazardous waste regulations. Elemental mercury waste is considered hazardous. Mercury can also be present in traps in the plumbing of older buildings in which mercury-containing equipment has been used.

#### **15.2.4 City of Richmond General Plan**

The City of Richmond General Plan contains policies and implementation programs that, in governing all project-related redevelopment activities and project-related development, would serve to mitigate associated hazardous materials impacts:

- *In accordance with Health and Safety Code Section 25135.4(a) and (b), no person shall establish or expand an on-site or off-site facility unless the City makes a determination that the facility or expansion is consistent with the City Hazardous Waste Management Plan. (Policy HW-5)*
- *The City of Richmond shall have the authority to temporarily close down any hazardous waste facility...which does not operate under the guidelines of its regulatory program... (Policy HW-6)*
- *...The City shall refer generators to the County Health Services Department for the technical assistance in achieving waste minimization and improvement in waste management methods used.... (Policy HW-8)*
- *Together with the County, the City of Richmond shall assist hazardous waste generators in developing plans for waste reduction. (Policy HW-9)*
- *The City shall require that environmental impact reports written for new or expanding businesses...contain an analysis of the operation's use of hazardous materials and the waste generating process to ensure that hazardous waste generation is being minimized and that the maximum level of public protection is achieved... (Policy HW-10)*
- *The City shall require appropriate on-site disposal of treated effluent meeting the permit requirements to the sanitary sewer... (Policy HW-11)*
- *Project specific review is necessary to determine if a proposed hazardous waste facility is actually required. The review shall include facility capacity, location, and types of waste handled. (Policy HW-16)*
- *Health risk screening, as required by the Bay Area Air Quality Management District or other regulatory agencies, shall be completed for all proposed hazardous waste management facilities... (Policy HW-19)*
- *Residents adjacent to hazardous waste management facilities shall be notified immediately by the City Emergency Response Organizations of any accidental occurrence such as spills,*

*leakages, or eruptions which may affect the health, safety, and welfare of the public. (Policy HW-20(b))*

- *Communication and Information Panels will be required whenever a land use permit is required for new hazardous waste...facilities... (Policy HW-21)*
- *...Proponents of new hazardous waste facilities that require a land use permit shall be required to meet with the impacted community to discuss project impacts and mitigation. When a facility is being considered for approval, local host community mitigation shall be considered. (Policy HW-22)*
- *For each specific project, the project sponsor shall prepare a hazardous material transportation program. The transportation program shall identify the location of the new or expanded facility and designate either (1) specific routes to be used for transport of hazardous materials or wastes to and from the facility, or (2) specific routes to be avoided during transport of hazardous materials and wastes to and from the facility. Routes would be selected to minimize proximity to sensitive receptors to the greatest practical degree. The City shall review and approve the applicant's hazardous material transportation program or, working with the applicant, modify it to the satisfaction of both parties. Documentation to that effect shall be added to the administrative record. (Policy HW-23)*
- *Transporters of hazardous materials shall be required to have communication equipment in their vehicle for use in the event of an accident or spill... (Policy HW-26)*
- *The City shall discourage parking of hazardous materials/waste carriers in residential and commercial areas in order to prevent potential accident or spill problems. (Policy HW-27)*
- *The City supports accelerated clean-up, including containment, as quickly as possible commensurate with minimizing the risk to the environment and public health. (Policy HW-28)*
- *Locate light industrial and industrial/office flex uses so as to ensure compatibility between the industrial operations and the other activities, and to enhance the character of the district, community, and environment in which they are located. (Policy LU-B.3)*
- *Establish performance standards to govern the development and operation of industrial facilities to safeguard adjacent industrial uses, residential areas, and other land uses in the community which might otherwise be affected. (Policy LU-B.4)*
- *Use established standards to limit industrial activities that may endanger human health and may cause damage to the environment. (Policy LU-O.6)*
- *Avoid land uses that place residential dwellings with "heavy" industrial and maritime uses. (Policy LU-O.7)*
- *Prohibit underground disposal of liquid wastes. (Policy OSC-K.3)*
- *City will require the project applicant, for every potentially contaminated location to be developed within Richmond, to have the site inspected by a Registered Environmental Assessor (i.e., a professional environmental scientist or engineer registered as an REA in California for the presence of hazardous materials and wastes. The investigations shall take*

*the form of environmental audits, and shall include, at a minimum, site inspections for hazardous materials, examination of historic records, and reviews of public agency records. Reports detailing the results of the inspections shall be submitted to the City for review. The report preparer shall either certify that the site is free of hazards or recommend preparation of a site mitigation plan. If the results of the environmental audit indicate a potential for contaminated soils, the City will require the applicant to work with appropriate state and regional agencies to fully analyze the site and remediate the problem. The City shall check that inspection reports are on file prior to project approval and prior to any excavation or construction. Acceptance of the site inspections report shall allow the proposed development to proceed to the permitting stage. All activities under this mitigation shall be done in conformance with the policies and procedures presented in Chapter 11 of the County Hazardous Waste Management Plan.*

*In the event that site inspections uncover pesticide contamination, underground storage tanks, abandoned drums, or other hazardous materials or wastes in the project area, the inspection report preparer shall so notify the City. The City shall notify the County Health Services Department. Under the direction of the appropriate agencies, a site remediation plan shall be prepared by the project applicant that would (1) specify measures to be taken to protect workers and the public from exposure to potential site hazards both during construction and for future maintenance and (2) certify that the proposed remediation measures would clean up the wastes, dispose of the wastes, and protect public health in accordance with federal, state, and local requirements. Permitting or work in the areas of potential hazard shall not proceed until the site remediation plan is on file with the City. In accordance with OSHA requirements, any activity performed at a contaminated site shall be preceded by preparation of a separate site health and safety plan (prepared by the project applicant and filed with the City) for the protection of workers and the public. All reports, plans, and other documentation shall be added to the administrative record. All activities under this mitigation shall be done in conformance with policies and procedures in Chapter 11 of the County Hazardous Waste Management Plan. (Implementation Program SF-B.7)*

- *City will require the following measures prior to approval of a specific development plan for a facility that handles hazardous materials:*
  - (a) *Sealed, reinforced concrete should be used where hazardous materials could be handled...*
  - (b) *A roof should cover all loading, unloading, and handling areas to minimize rain falling on hazardous waste handling areas...*
  - (c) *All stormwater runoff...that comes from hazardous material handling areas or enters hazardous material handling areas should be collected and tested prior to discharge. Sumps should be built to contain any runoff collected; these would also contain spills and mixtures of runoff and spills. Sumps can be used to hold runoff until it can be tested and either discharged to the sewer or disposed of as hazardous waste. (Implementation Program SF-B.8)*

The General Plan also contains policies and implementation programs that address emergency response and fire protection services, including the following (see also chapter 7, Infrastructure and Public Services):

- *City will continue to operate, equip, and upgrade the permanent City of Richmond Emergency Operations Center, and an alternate center, to coordinate emergency and disaster operations.* (Implementation Program CF-G.1)
- *City will continue to implement and update its Disaster Preparedness Program and Multi-Functional Hazard Plan.* (Implementation Program SF-D.2)

### **15.2.2 City of Richmond Zoning Ordinance**

The City of Richmond Zoning Ordinance contains the following provisions relevant to hazardous materials:<sup>1</sup>

- Section 15.04.820.020 – Hazardous Materials. The provisions of this section “govern all...activities which involve hazardous waste or hazardous materials.” The purposes of this section include establishing the basis for the issuance of conditional use permits for activities involving hazardous materials, and encouraging reductions in the amounts of materials managed. The section includes a table indicating under what conditions various uses and activities would be allowed in each industrially zoned district.
- Section 15.040.840.080 – Performance Standards – Fire Hazard Standards. This section requires that the storage, use, transportation, or production of products that constitute flammable, combustible, or explosive material be subject to fire codes and approval by the City of Richmond Fire Department.
- Section 15.040.840.090 – Performance Standards – Liquid or Solid Waste Standards. This section requires that the use, handling, storage, and transportation of hazardous materials comply with the provisions of the California Hazardous Materials Regulations and any other applicable laws.

## **15.3 IMPACTS AND MITIGATION MEASURES**

### **15.3.1 Significance Criteria**

Based on the CEQA Guidelines,<sup>2</sup> the project would be considered to have a significant impact if it would directly or indirectly:

- (a) create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- (b) create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- (c) emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;

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<sup>1</sup>Richmond Redevelopment Areas Merger and Amendments Draft EIR, February 1999, pages 97-98.

<sup>2</sup>CEQA Guidelines, Appendix G, Items VII(a) through VII(d) and VII(g).

- (d) be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment; or
- (e) impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

### **15.3.2 Impacts and Mitigation Measures**

**Existing and Future Hazardous Materials Use and Disposal.** Hazardous substances may be stored, generated, and/or used in association with future new commercial or industrial uses permitted or facilitated by the project. Future project vicinity occupants may be exposed to accidental spillage or leakage of hazardous materials stored in on-site commercial or industrial areas. In some portions of the Merged Project Area (e.g., in central and southern Richmond and in the Hilltop area), future commercial and industrial uses may be located next to or near residential neighborhoods, creating the potential for residents to be exposed to hazardous materials.

All hazardous materials are required to be stored and handled according to manufacturer's directions and local, state, and federal regulations. Some of these regulations may include posting of signs, Fire Department notification, and specialized containment facilities.

The City would require all new commercial, industrial, and other uses in the Merged Project Area to follow applicable regulations and guidelines regarding the storage and handling of hazardous waste, including General Plan and Zoning Ordinance requirements. These established measures would be expected to ensure that the potentially significant health and safety effects associated with project-related potential exposure to stored hazardous materials would remain a ***less-than-significant impact***.

**Mitigation for Existing and Future Hazardous Materials Use and Disposal.** No significant adverse impact has been identified; no additional mitigation is required.

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**Project-Related Exposure to Existing Hazardous Materials Contamination.** Due to the large number of contaminated sites in the project vicinity,<sup>1</sup> there is always a small possibility that project construction could encounter contamination and expose construction workers to existing spilled, leaked, or otherwise discharged hazardous materials or wastes. Each developer of a site in the Merged Project Area would be required to comply with all applicable existing state-, county-, and city-mandated site assessment, remediation, removal, and disposal requirements for soil, surface water, and/or groundwater contamination. In particular, these include the requirements of the City, RWQCB, and California Department of Toxic Substances Control (DTSC). Compliance with these established requirements would be expected to assure that this possible health and safety impact would be ***less-than-significant***.

Typically, implementation of these measures would involve the following steps:

- (a) ***Soil Contamination.*** In order to mitigate potential health hazards related to construction personnel or future occupant exposure to soil contamination, developers would complete the

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<sup>1</sup>See footnote on page 15-1.

following steps for each site proposed for disturbance as part of a project-facilitated construction activity in the Merged Project Area:

- Step 1. Investigate the site to determine whether it has a record of hazardous material discharge into soils, and if so, characterize the site according to the nature and extent of soil contamination that is present before development activities proceed at that site.
- Step 2. Based on the proposed activities associated with the future project proposed, determine the need for further investigation and/or remediation of the soils conditions on the contaminated site. For example, if the area is slated for commercial land use, such as a retail center, the majority of the site will be paved and there will be little or no contact with contaminated soil. Industrial cleanup levels would likely be applicable. If the slated development activity could involve human contact with soils, such as may be the case with residential use, then Step 3 should be completed. If no human contact is anticipated, then no further mitigation is necessary.
- Step 3. If it is determined that extensive soil contact would accompany the intended use of the site, undertake a Phase II investigation, involving soil sampling at a minimum, at the expense of the property owner or responsible party. Should further investigation reveal high levels of hazardous materials in the site soils, mitigate health and safety risks according to City of Richmond, Contra Costa County Health Services Department, and Regional Water Quality Control Board (RWQCB) regulations. This would include site-specific health and safety plans prepared prior to undertaking any building or utility construction. Also, if buildings are situated over soils that are significantly contaminated, undertake measures to either remove the chemicals or prevent contaminants from entering and collecting within the building. If remediation of contaminated soil is infeasible, a deed restriction would be necessary to limit site use and eliminate unacceptable risks to health or the environment.

*(b) Surface or Groundwater Contamination.* In order to reduce potential health hazards due to construction personnel or future occupant exposure to surface water or groundwater contamination, developers would complete the following steps for each site proposed for disturbance as part of a project-facilitated construction activity in the Merged Project Area:

- Step 1. Investigate the site to determine whether it has a record of hazardous material discharge into surface or groundwater, and if so, characterize the site according to the nature and extent of contamination that is present before development activities proceed at that site.
- Step 2. Install drainage improvements in order to prevent transport and spreading of hazardous materials that may spill or accumulate on-site.
- Step 3. If investigations indicate evidence of chemical/environmental hazards in site surface water and/or groundwater, then mitigation measures acceptable to the RWQCB would be required to remediate the site prior to development activity.
- Step 4. Inform construction personnel of the proximity to recognized contaminated sites and advise them of health and safety procedures to prevent exposure to hazardous chemicals in surface water/groundwater.

**Mitigation for Project-Related Exposure to Existing Hazardous Materials Contamination.**

No significant additional adverse impact has been identified; no additional mitigation is required.

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**Project-Related Potential Asbestos and PCB Exposure.** Removal or disturbance of asbestos-containing material (ACM) and/or transformers during project-facilitated alteration, renovation, or demolition of existing structures within the Merged Project Area could expose construction workers and the general public to friable asbestos and/or PCBs. Therefore, as a condition of project-facilitated alteration, renovation, or demolition permit approval for buildings within the Merged Project Area, the City would routinely require the project applicant to coordinate with the Bay Area Air Quality Management District (BAAQMD) to determine if asbestos or PCBs are present.

Ensuring proper identification and removal of ACM and/or PCBs requires each project applicant to complete the following steps:

- Step 1. Thoroughly survey the project site and existing structures for the presence of asbestos-containing material. The survey shall be performed by a person who is properly certified by OSHA and has taken and passed an EPA-approved building inspector course.
- Step 2. If building elements containing any amount of asbestos are present, prepare a written Asbestos Abatement Plan describing activities and procedures for removal, handling, and disposal of these building elements using the most appropriate procedures, work practices, and engineering controls.
- Step 3. Provide the asbestos survey findings, the written Asbestos Abatement Plan (if necessary), and notification of intent to demolish to the City of Richmond and Contra Costa County Health Services Department at least ten days prior to commencement of demolition.
- Step 4. Remove any on-site transformers prior to demolition of non-residential buildings.

Implementation of these required measures would be expected to reduce the potentially significant health and safety impacts associated with asbestos removal and PCBs to a ***less-than-significant level***.

**Mitigation for Project-Related Potential Asbestos and PCB Exposure.** No significant adverse impact has been identified; no additional mitigation is required.

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**Project-Related Potential Lead-Based Paint Exposure.** If lead-based paint is present and has delaminated (split into thin layers) or chipped from surfaces, airborne lead particles could be released during project-facilitated alteration, renovation, or demolition of existing structures within the Merged Project Area. CalOSHA regulations (as described above in section 15.2.3, "Regulation of Hazardous Building Components") would be applied, and each individual, site-specific project applicant would implement the following procedures in accordance with those CalOSHA regulations:

- Notify the City of Richmond Building Regulations Department prior to starting work, describing the nature, location, and schedule of the work;

- Post a sign at all work locations where lead containment is required, stating that lead-based paint abatement is in progress and public access is prohibited;
- Notify the tenant(s) where the lead-based paint abatement work will be performed on a residential property occupied by one or more tenants; and
- Notify the property owner when work on a residential project will disturb lead-based paint.

Lead abatement performance standards are included in the *Guidelines for Evaluation and Control of Lead-Based Paint Hazards* (U.S. Department of Housing and Urban Development). Accordingly, HEPA vacuums may be required for abrasive blasting, water blasting, scraping, or sanding. Burning, torching, and similar activities are prohibited. Following completion of lead-based paint abatement, all visible lead-based paint particles must be removed from the site.

The Building Regulations Department may inspect lead-based paint abatement activities at any time during construction. The Building Regulations Department is also responsible for addressing citizen complaints related to lead-based paint abatement activities and may issue a Notice of Violation, a Stop Work order, or a fine.

Implementation of the regulations outlined above would result in a ***less-than-significant impact*** associated with lead-based paint exposure.

**Mitigation for Project-Related Potential Lead-Based Paint Exposure.** No significant adverse impact has been identified; no additional mitigation is required.

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**Anticipated Beneficial Hazardous Materials Remediation Effects of the Project.** As discussed in chapter 3, Project Description, anticipated improvements facilitated by the redevelopment plan amendment include environmental site clean-up. This project-facilitated improvement would have beneficial effects on hazardous materials remediation in the Merged Project Area.

**Mitigation for Anticipated Beneficial Hazardous Materials Remediation Effects of the Project.** No significant adverse impact has been identified; no mitigation is required.

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**Impact 15-1: Interference with Emergency Response Plans.** Additional development and redevelopment facilitated by the project could cause interference with emergency response plans, including possible evacuation in the Chevron refinery "flammable risk zone" that includes central Richmond portions of the Merged Project Area. This possibility represents a ***potentially significant impact*** (see criterion (e) in section 15.3.1, "Significance Criteria," above).

**Mitigation 15-1.** Any Redevelopment Agency assistance to discretionary private development activity within the Chevron refinery “flammable risk zone” shall be accompanied by the appropriate disclosure information regarding associated implications and emergency instructional materials/information (stay-in-place measures, evacuation needs and routes, etc.). Successful implementation of this measure would supplement the City’s existing General Plan policies and implementation programs and would reduce this impact to a ***less-than-significant level***.

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**Cumulative Hazardous Materials Impacts.** Buildout of the Merged Project Area under the proposed redevelopment plan amendment--in combination with other future General Plan-based development elsewhere in the city and region--would cumulatively increase the number of people potentially exposed to hazardous materials. Implementation of the policies, regulations, and mitigation measures described in this EIR chapter would ensure that the potential project contribution to these cumulative impacts would be ***less-than-significant***.

**Mitigation for Cumulative Hazardous Materials Impacts.** No significant impact has been identified; no mitigation is required.



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## 16. CLIMATE CHANGE

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This EIR chapter addresses the climate change implications of the proposed redevelopment plan amendment and redevelopment plan amendment-facilitated growth. The chapter describes the climate change issue, the potential climate change impacts of the redevelopment plan amendment, and mitigation measures warranted to address identified significant impacts. The City has undertaken this programmatic EIR climate change impact analysis based on the most current available guidance from the State Governor's Office of Planning and Research (OPR).

On June 19, 2008, OPR released an interim technical advisory that offered "informal guidance" regarding the steps that lead agencies should take to address climate change impacts in their CEQA documents,<sup>1</sup> in the absence of adopted statewide "significance" thresholds. Section 16.2.1(d) of this chapter provides more information on this interim guidance. Subsequently, on April 13, 2009, OPR released proposed draft amendments to the CEQA Guidelines pertaining to climate change<sup>2</sup> which the California Resources Agency is required to adopt on or before January 1, 2010, pursuant to Senate Bill 97. Section 16.2.1(c) of this chapter provides more information on SB 97, and section 16.2.1(e) of this chapter provides more information on the draft climate change guidelines. The draft climate change guidelines, although not yet adopted, provide direction for the mitigation of greenhouse gas emissions effects.

### 16.1 SETTING

#### 16.1.1 Background

The term *climate change* is often used interchangeably with the term global warming. *Climate change* refers to any significant change in measures of climate (such as temperature, precipitation, or wind) lasting for an extended period (decades or longer). Climate change may result from a variety of causes, both natural and human induced. *Global warming* refers to an average increase in the temperature of the atmosphere near the Earth's surface and in the troposphere, which can contribute to changes in global climate patterns. Global warming can occur from a variety of causes, both natural and human-induced. In common usage, "global warming" often refers to the warming that can occur as a result of increased emissions of greenhouse gases from human activities.<sup>3</sup>

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<sup>1</sup>Governor's Office of Planning and Research (OPR). *Technical Advisory, CEQA and Climate Change: Addressing Climate Change to the California Environmental Quality Act (CEQA) Review*. June 19, 2008. This document is available online at the Office of Planning and research's website at: [www.opr.gov](http://www.opr.gov). Viewed July 24, 2008.

<sup>2</sup>Governor's Office of Planning and Research (OPR), *Proposed Amendments to CEQA Guidelines*, April 13, 2009.

<sup>3</sup>U.S. Environmental Protection Agency (EPA) website, Climate Change, Basic Information, September 30, 2008.

Gases that trap heat in the atmosphere are referred to as "greenhouse gases" (GHGs) because they capture heat radiated from the sun as it is reflected back into the atmosphere, much like a greenhouse does. For over the past 200 years, GHG emissions and deforestation have caused the concentrations of heat-trapping GHGs to increase significantly in the atmosphere. These gases prevent heat from escaping to space. Since the early 1990s, scientific consensus has held that the world's population is releasing GHGs faster than the earth's natural systems can absorb them. These GHGs are released as by-products of fossil fuel combustion, waste disposal, energy use, land use changes, and other human activities.

This release of GHGs creates a blanket around the earth that allows light to pass through but traps heat at the surface, preventing its escape into space. Models show that this greenhouse effect phenomenon will lead to a two- to ten-degree Fahrenheit (F) temperature increase over the next 100 years. Already the Intergovernmental Panel on Climate Change (IPCC), an international group of scientists and representatives, warns that most of the warming observed over the last 50 years is attributable to human activities. The accumulation of GHGs has been implicated as a driving force for global climate change.

There is international scientific consensus that human-caused increases in GHGs have and will continue to contribute to global warming, although there is uncertainty concerning the magnitude and rate of the warming.

Carbon dioxide (CO<sub>2</sub>) accounts for approximately 85 percent of total human activity-generated GHG emissions. Emissions of other GHGs, such as carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O), have also increased due to human activities. Methane and nitrous oxide emissions account for almost 14 percent of total greenhouse gas emissions. Each of these gases, however, contributes to global warming at a different relative rate. Methane has a global warming potential 23 times that of carbon dioxide, while nitrous oxide is 296 times that of the same amount of carbon monoxide. To account for these differences, estimates of greenhouse gas emissions are often described in terms of *carbon dioxide equivalents* (CO<sub>2</sub>e).

### **16.1.2 Existing Conditions**

The existing environmental conditions or setting, without the project, constitutes the baseline physical condition for determining whether a project's impacts are significant.

(a) Global GHG Emissions. A report of the Intergovernmental Panel on Climate Change (IPCC) predicts a global temperature increase of between two and 11.5 degrees Fahrenheit (F) (1.1 and 6.4 degrees Celsius) by the end of the 21st century under six different scenarios of emissions and carbon dioxide equivalent concentrations.<sup>1</sup> Sea levels are predicted to rise by 0.18 to 0.59 meters (7 to 23 inches) during this time, with an additional 3.9 to 7.8 inches possible depending upon the rate of polar ice sheets melting from increased warming. The IPCC reports that the increase in hurricane and tropical cyclone strength since 1970 can also likely be attributed to human-generated greenhouse gases.

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<sup>1</sup>IPCC, 2007: Summary for Policymakers. In: Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change.

Global GHG inventory data published in 2007 by the United Nations<sup>1</sup> indicated that worldwide emissions of GHGs in 2004 totaled 27 billion metric tons.<sup>2</sup>

(b) U.S. GHG Emissions. In the U.S., energy-related activities account for three-quarters of human-generated GHG, mostly in the form of carbon dioxide emissions from burning fossil fuels. More than half the energy-related emissions come from large stationary sources such as power plants, while about a third comes from transportation. Industrial processes (such as the production of cement, steel, and aluminum), agriculture, forestry, other land use, and waste management are also important U.S. sources of GHG emissions.<sup>3</sup>

The latest EPA-published national inventory of U.S. GHG emissions shows that in 2005 the U.S. emitted over 7.2 billion metric tons of GHG. (A million metric tons of CO<sub>2</sub>e is roughly equal to the annual GHG emissions of an average U.S. power plant.)

(c) State GHG Emissions. According to the California Air Resources Board (CARB) emissions inventory estimates, California emitted approximately 480 million metric tons of GHGs in 2004.<sup>4</sup> This large number is due primarily to the sheer size of California compared to other States. By contrast, California has the fourth lowest per-capita GHG emission rate from fossil fuel combustion in the country, due to the success of its energy efficiency and renewable energy programs and commitments that have lowered the State's GHG emissions rate of growth by more than half of what it would have been otherwise.<sup>5</sup>

The California EPA Climate Action Team stated in its March 2006 report that the composition of gross climate change pollutant emissions in California in 2002 (expressed in terms of CO<sub>2</sub>eq) was as follows:

- Carbon dioxide (CO<sub>2</sub>) accounted for 83.3 percent;
- Methane (CH<sub>4</sub>) accounted to 6.4 percent;
- Nitrous oxide (N<sub>2</sub>O) accounted to 6.8 percent; and
- Fluorinated gases (HFCs, PFC, and SF<sub>6</sub>) accounted for 3.5 percent.<sup>6</sup>

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<sup>1</sup>Combined total of Annex I and Non-Annex I Country CO<sub>2</sub>eq emissions. United Nations Framework Convention on Climate Change (UNFCCC), 2007, *Greenhouse Gas Inventory Data*. Information available at [http://unfccc.int/ghg\\_data/ghg\\_data\\_unfccc/time\\_series\\_annex\\_i/items/3814.php](http://unfccc.int/ghg_data/ghg_data_unfccc/time_series_annex_i/items/3814.php) and [http://maindb.unfccc.int/library/view\\_pdf.pl?url=http://unfccc.int/resource/docs/2005/sbi/eng/18a02.pdf](http://maindb.unfccc.int/library/view_pdf.pl?url=http://unfccc.int/resource/docs/2005/sbi/eng/18a02.pdf).

<sup>2</sup>A metric ton is equivalent to approximately 1.1 tons.

<sup>3</sup>EPA, p. 2.

<sup>4</sup>California Air Resources Board, *Greenhouse Gas Inventory Data - 1990 to 2004*. <http://www.arb.ca.gov/cc/inventory/data/data.htm>. Accessed November 2008.

<sup>5</sup>California Energy Commission (CEC), 2007. *Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004 - Final Staff Report*, publication # CEC-600-2006-013-SF, Sacramento, CA, December 22, 2006; and January 23, 2007 update to that report.

<sup>6</sup>California Environmental Protection Agency. 2006. *Climate Action Team Report to Governor Schwarzenegger and the Legislature*. March.

CARB is responsible for developing the California Greenhouse Gas Emission Inventory. This inventory estimates the amount of GHGs emitted to and removed from the atmosphere by human activities within the State of California and supports the AB 32 Climate Change Program. CARB's current GHG emission inventory covers the year 1990-2004 and is based on fuel use, equipment activity, industrial processes, and other relevant data (e.g., housing, landfill activity, agricultural lands, etc.). The emission inventory estimates are based on the actual amount of all fuels combusted in the State, which accounts for over 85 percent of the GHG emissions within California.

The CARB estimates that transportation was the source of approximately 38 percent of the State's GHG emissions in 2004, followed by electricity generation (both in-State and out-of-State) at 23 percent, and industrial sources at 20 percent. The remaining sources of GHG emissions in 2004 were residential and commercial activities at 9 percent, agriculture at 6 percent, high global warming potential gases at 3 percent, and recycling and waste at 1 percent.<sup>1</sup>

Potential impacts of global warming in California may include, but are not limited to, loss in snowpack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years.<sup>2</sup> Secondary effects are likely to include impacts to agriculture, changes in disease vectors, changes in habitat and biodiversity, and contribution to global rise in sea level.

The Sierra snowpack, an important source of water supply for the state, has shrunk 10 percent in the last 100 years. It is expected to continue to decrease by up to 25 percent by 2050.

CARB staff has also projected anticipated 2020 unregulated GHG emissions--i.e., the emissions that would be expected to occur statewide in the absence of any GHG reduction actions. CARB staff estimates the statewide 2020 unregulated GHG emissions would be 596 million metric tons (of CO<sub>2</sub>eq).

GHG emissions in 2020 from the transportation and electricity sectors as a whole are expected by CARB staff to increase, but remain at approximately 38 percent and 23 percent of total GHG (CO<sub>2</sub>eq) emissions, respectively. The industrial sector consists of large stationary sources of GHG emissions and the percentage of the total 2020 emissions from that sector is projected by CARB staff to be 17 percent of total GHG emissions. The remaining sources of GHG emissions anticipated in 2020 are high global warming potential gases at 8 percent, residential and commercial activities at 8 percent, agriculture at 5 percent, and recycling and waste at 1 percent.<sup>3</sup>

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<sup>1</sup>California Air Resources Board (CARB), 2008. <http://www.climatechange.ca.gov/inventory/index.html>. September.

<sup>2</sup>California Air Resources Board (CARB), 2006a. Climate Change website (<http://www.arb.ca.gov/cc/120106workshop/intropres12106.pdf>), accessed December 4, 2007.

<sup>3</sup>California Air Resources Board (CARB), 2008. <http://www.arb.ca.gov/cc/inventory/data/forecast.htm>. September.

(d) Bay Area Emissions. The Bay Area Air Quality Management District (BAAQMD) established a climate protection program in 2005 to acknowledge the link between climate change and air quality. The Air District regularly prepares inventories of criteria and toxic air pollutants to support planning, regulatory and other programs. The most recent GHG emissions inventory estimates posted by the BAAQMD for the San Francisco Bay Area are for base year 2007.<sup>1</sup>

In 2007, an estimated 102.6 million metric tons of GHGs were emitted by the San Francisco Bay Area. Fossil fuel consumption in the transportation sector was the single largest source of these estimated GHG emissions. The transportation sector, including on-road motor vehicles, locomotives, ships and boats, and aircraft, contributed over 40 percent of the estimated GHG emissions. The industrial and commercial sector (excluding electricity and agriculture) was the second largest contributor with 34 percent of total GHG emissions. Energy production activities such as electricity generation and co-generation were the third largest contributor accounting for approximately 15 percent of the total GHG emissions. Off-road equipment such as construction, industrial, commercial, and lawn and garden equipment contributed 3 percent of GHG emissions.

(d) City GHG Emissions. ICLEI--Local Governments for Sustainability is an international association of local governments and national and regional governmental organizations that have made a commitment to sustainable development.<sup>2</sup> In February 2009, City of Richmond and ICLEI staff released a *City of Richmond 2005 Greenhouse Gas Emissions Inventory* report, which identified the estimated levels of GHG emissions that the community was generating in the 2005 base year. The community inventory results are summarized in Table 16.1 herein. Table 16.1 shows total GHG emissions in Richmond from all major sources for the year 2005. As shown, the community emitted approximately 5,853,020 metric tons of CO<sub>2</sub>e (CO<sub>2</sub> or CO<sub>2</sub> equivalent) in 2005 from all major sources, including the residential, commercial, industrial, transportation and waste sectors.

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<sup>1</sup>Bay Area Air Quality Management District, 2008. *Source Inventory of Bay Area Greenhouse Gas Emissions*. December.

<sup>2</sup>More than 900 cities, towns, counties, and their associations in 68 countries currently comprise ICLEI's membership. ICLEI works with these local governments through international performance-based, results-oriented campaigns and programs. ICLEI's basic premise is that locally designed initiatives can provide an effective and cost-efficient way to achieve local, national, and global sustainability objectives.

ICLEI's Cities for Climate Protection (CCP) Campaign was launched in 1993 when municipal leaders, invited by ICLEI, met at the United Nations in New York and adopted a declaration that called for the establishment of a worldwide movement of local governments to reduce GHGs, improve air quality, and enhance urban sustainability.

Table 16.1  
ICLEI INVENTORY: RICHMOND 2005 GREENHOUSE GAS EMISSIONS SUMMARY

<u>Potential Sources</u>	<u>Equiv. CO<sub>2</sub>e (metric tons)</u>	<u>Percentage of Total</u>
<i>Stationary Sources:</i>		
Residential	126,118	2.2
Commercial/Industrial	5,141,572	87.8
<i>Subtotal</i>	<i>5,267,690</i>	<i>90.0</i>
Transportation Sources	506,842	8.7
Solid Waste Sources	<u>78,488</u>	<u>1.3</u>
<b>TOTALS</b>	<b>5,853,020</b>	<b>100.0</b>

SOURCE: City of Richmond Greenhouse Gas Emissions Inventory report, City of Richmond and ICCLEI, February 2009, page 8.

Table 16.1 indicates that fuel consumption in the commercial/industrial sector was by far the single largest source of GHG emissions in Richmond in 2005, contributing approximately 87.8 percent of total emissions, or 5,141,572 metric tons of CO<sub>2</sub>e. The February 2009 Emissions Inventory report explained that 68.5 percent (or 3,522,986 metric tons of CO<sub>2</sub>e) of the estimated 2005 commercial/industrial greenhouse gas emissions were point source emissions generated by the various processes monitored by the BAAQMD (excluding on-site natural gas use), and 29.7 percent of the emissions were generated from the combustion of natural gas, most likely used in large industrial processes, including on-site generation of electricity and the operation of boilers. Commercial/industrial electricity consumption accounted for less than 2 percent of the 2005 commercial/industrial GHG sources.

Table 16.1 shows that the transportation sector was responsible for about 8.7 percent of Richmond's greenhouse gas emissions in 2005.

(e) Sea Level Rise. World-wide climate changes are also causing sea levels in California coastal areas to rise. About 8 inches of increase have been recorded at the Golden Gate Bridge over the past 100 years, threatening low coastal areas in the Bay region with inundation and serious damage from storms.<sup>1</sup> Predicted long-term climate change (increased temperatures) is expected to continue to cause rising sea levels along the California coastline, particularly in the San Francisco and the San Joaquin Delta areas, due to ocean expansion. According to a 2008 California Department of Water Resources report, recent peer-reviewed studies estimate a rise of between 7 to 55 inches by 2100 along California's coast.<sup>2</sup> A recent report by the Pacific Institute predicts that a 1.4-meter (55-inch) sea level rise along California's

<sup>1</sup>CARB Draft Scoping Plan, page 6.

<sup>2</sup>California Department of Water Resources, Managing an Uncertain Future: Climate Change Adaptation Strategies for California's Water, October 2008, page 6. (<http://www.water.ca.gov/climatechange/docs/ClimateChangeWhitePaper.pdf>)

coast will put 480,000 people at risk of a 100-year flood event, given today's population. This amount of sea level rise is also expected to accelerate erosion, resulting in a loss of 41 square miles (over 26,000 acres) of California's coast by 2100.<sup>1</sup>

According to sea level rise maps produced by the San Francisco Bay Conservation and Development Commission (BCDC), the Central Bay East Shore, including the Richmond shoreline, is expected to be vulnerable to a 55-inch rise in Bay water level by the end of the century.<sup>2</sup>

## 16.2 PERTINENT PLANS AND POLICIES

Adopted and anticipated state and local plans, policies, and programs pertinent to climate change and consideration of the climate change impacts of the proposed redevelopment plan amendment and associated growth scenario are described below.

### 16.2.1 State of California

(a) Governor's Executive Order S-3-05 (2005). According to climate scientists, California and the rest of the developed world will have to cut emissions by 80 percent from today's levels to stabilize the amount of carbon dioxide in the atmosphere and prevent the most severe effects of climate change.<sup>3</sup> In 2005, in recognition of this long-range goal and California's vulnerability to the effects of climate change, Governor Schwarzenegger established Executive Order S-3-05, which sets forth a series of target dates by which statewide emission of greenhouse gases (GHG) would be progressively reduced, as follows: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels.<sup>4</sup>

(b) AB 32 (2006). In 2006, California passed the California Global Warming Solutions Act of 2006 (Assembly Bill No. 32; California Health and Safety Code Division 25.5, Sections 38500, et seq., or AB 32), which requires the California Air Resources Board (CARB) to design and implement emission limits, regulations, and other measures, such that statewide GHG emissions are reduced to 1990 levels by 2020 (representing a 25-percent reduction in emissions).

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<sup>1</sup>California Climate Change Center, The Impacts of Sea-Level Rise on the California Coast, prepared by Matthew Heberger, Heather Cooley, Pablo Herrera, Peter H. Gleick, and Eli Moore of the Pacific Institute, March 2009, page xi. ([http://www.pacinst.org/reports/sea\\_level\\_rise/report.pdf](http://www.pacinst.org/reports/sea_level_rise/report.pdf))

<sup>2</sup>BCDC has produced a three-map series to illustrate two sea level rise scenarios. The series depicts (1) a mid-century sea level rise of 16 inches, (2) an end-of-century sea level rise of 55 inches, and (3) a composite of both 16 and 55 inches.

<sup>3</sup>CARB Draft Scoping Plan, page ES-2.

<sup>4</sup>There are 12 exceptions to this requirement (e.g., emergency situations, military, adverse weather conditions, etc.), including: when a vehicle's power takeoff is being used to run pumps, blowers, or other equipment; when a vehicle is stuck in traffic, stopped at a light, or under direction of a police officer; when a vehicle is queuing beyond 100 feet from any restricted area; or when an engine is being tested, serviced, or repaired.

In the Findings and Declarations for AB 32, the Legislature found that:

“The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to the marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other health-related problems.”

AB 32 establishes a timetable for the CARB to adopt emission limits, rules, and regulations designed to achieve the intent of the Act. The CARB met the first AB 32-established milestones in 2007 by developing a list of early actions to begin sharply reducing greenhouse gas emissions, assembling an inventory of historic emissions, and establishing the 2020 emissions limit. A total of 44 early action measures have been identified by the CARB.<sup>1</sup> Pertinent measures from the list that could become effective during implementation of the proposed redevelopment program are generally limited to construction-related equipment operations.

AB 32 stipulated that the CARB must also develop a "Climate Change Scoping Plan" to lower the state's greenhouse gas emissions to meet the 2020 limit. In December 2008, the CARB approved a "Climate Change Scoping Plan" that proposes a comprehensive set of actions designed to reduce overall carbon emissions in California, reduce dependence on oil, diversify state energy sources, and save energy. The Scoping Plan measures adopted by the CARB will be further developed over the next three years and put in place by 2012.

The Scoping Plan indicates that reducing statewide greenhouse gas emissions to 1990 levels means cutting approximately 30 percent from business-as-usual emission levels projected for 2020, or about 10 percent from today's levels. On a per-capita basis, the Scoping Plan indicates that this means reducing statewide annual emissions of carbon dioxide for every man, woman, and child in California from approximately 14 tons now down to about 10 tons by 2020.

(c) SB 97 (2007). State Senate Bill 97 (Dutton), enacted in 2007, amended the CEQA statute to clearly establish that GHG emissions and the effects of GHG emissions are appropriate subjects for CEQA analysis. SB 97 directed OPR to develop draft CEQA Guidelines "for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions" by July 1, 2009 and directed the State Resources Agency to certify and adopt the CEQA Guidelines by January 1, 2010. OPR submitted the draft CEQA Guideline amendments to the Resources Agency on April 13, 2009. The draft Guidelines are described in subsection (e) which follows.

(d) Interim CEQA Technical Advisory, CEQA and Climate Change (June 2008). On June 18, 2008, OPR released a CEQA and Climate Change Technical Advisory<sup>2</sup> for interim use until January 1, 2010 when the new CEQA Guidelines on the analysis and mitigation of GHG emissions in CEQA documents are scheduled to be adopted. The June 2008 Technical Advisory provides "informal guidance" regarding the steps lead agencies should take to address

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<sup>1</sup>California Air Resources Board (CARB), *Draft Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California Recommended for Board Consideration*, September 2007.

<sup>2</sup>California Governor's Office of Planning and Research, *Technical Advisory, CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review*, June 19, 2008. (CEQA Climate Change Technical Advisory, June 2008)

climate change in their CEQA documents. The Technical Advisory was developed in cooperation with the Resources Agency, the California Environmental Protection Agency (Cal/EPA), and the California Air Resources Board (CARB).

The Advisory indicates that lead agencies should: (1) determine whether greenhouse gases may be generated by a proposed project, and if so, quantify or estimate the GHG emissions by type and source; and (2) assess whether those emissions are individually or cumulatively significant. The interim Advisory suggests that when assessing whether a project's effects on climate change are "cumulatively considerable" even though its GHG contribution may be individually limited, the lead agency must consider the impact of the project when viewed in connection with the effects of past, current, and probable future projects. If the lead agency determines on that basis that the GHG emissions from the project as proposed are potentially significant, it must identify and implement measures to avoid, reduce, or otherwise mitigate the impacts of those emissions.<sup>1</sup>

(e) Draft CEQA Guideline Amendments (April 2009). Pursuant to SB 97, Draft CEQA Guidelines for the analysis and mitigation of GHG emissions were submitted by OPR to the Resources Agency on April 13, 2009.<sup>2</sup> Although not yet adopted, these draft amendments provide additional preliminary direction for determining the significance of and mitigating greenhouse gas emissions impacts on the environment. The draft amendments suggest that local agencies should evaluate the following when determining the significance of GHG emissions: (1) the extent to which the project may increase or reduce GHG emissions compared with the existing environment; (2) whether the emissions exceed a threshold of significance that applies to the project; and (3) the extent to which the project complies with requirements adopted to implement a statewide, regional, or local plan for reduction of GHG emissions. The draft amendments also suggest that mitigation measures include: (1) measures contained in an existing plan to reduce GHG emissions; (2) reductions in GHG emissions through project design, such as those contained in Appendix F to the CEQA Guidelines (Energy Conservation); (3) off-site measures, including offsets; and (4) measures that sequester GHG emissions (i.e., capture at the source).

### **16.2.2 City of Richmond**

(a) City of Richmond General Plan. Many goals and policies from the City's adopted General Plan are pertinent to consideration of the proposed redevelopment plan amendment and its potential climate change impacts and, in governing all project-related redevelopment activities and project-related development, would serve to mitigate associated adverse climate change impacts. Policies that encourage efficient land use patterns such as infill development, reduction of air emissions, traffic reduction and alternative transportation modes, energy conservation, and waste reduction are particularly relevant since, as explained in section 16.1, "Setting," above, GHGs are released as by-products of fossil fuel combustion, waste disposal, energy use, and land use changes. Policies that address sea level rise, flood control/protection, and water supply and conservation are also relevant because, as explained in section 16.1, potential secondary impacts of global warming in California may include sea level rise, loss in snow pack, and more drought years.

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<sup>1</sup>State of California, Governor's Office of Planning and Research, *Technical Advisory, CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act Review* (CEQA TA), June 19, 2008; page 1.

<sup>2</sup>See footnote 2 on page 16-1.

Richmond General Plan policies that address these climate change-related issues and would serve to mitigate associated climate change impacts of the proposed redevelopment plan amendment are listed in chapter 4 (Land Use), chapter 6 (Transportation and Circulation), chapter 7 (Infrastructure and Public Services), chapter 12 (Drainage and Water Quality), and chapter 14 (Air Quality). In addition, the following Richmond General Plan policy and implementation program regarding energy conservation would serve to mitigate project-related climate change impacts:

- *Promote the use of energy conservation features in the design of all new residential structures, in accordance with the State Building Energy Efficiency Standards. (Policy CF-H.19)*
- *City will continue its efforts toward more efficient use of energy (energy conservation). These include: replacing older street lights with high efficiency lamps; retrofitting all lighting in City public buildings to high efficiency lamps; selectively turning off supply and exhaust fans; and pursuing a major conservation effort to reduce City's usage of gas, electricity, and water. City will also adopt an energy conservation policy that encourages the use of alternate forms of energy and reviews proposed projects for the potential conservation of non-renewable sources of energy. (Implementation Program CF-H.7)*

(b) Energy and Climate Change Element (General Plan Update). As part of the General Plan update currently underway, the City is preparing an Energy and Climate Change Element with funding from a \$75,000 grant from the BAAQMD. The Energy and Climate Change Element will identify land use and transportation effects on energy consumption and provide policies to regulate and reduce GHGs. The City also expects the updated General Plan to incorporate other sustainability concepts, such as natural resource conservation, transit-oriented development, access to many modes of transportation, green building incentives, and public health.<sup>1</sup>

(c) Other City of Richmond Commitments. The City is a member of ICLEI--Local Governments for Sustainability, an international association of local governments and national and regional governmental organizations that have made a commitment to sustainable development.<sup>2</sup> The City has also committed to reducing its greenhouse gas emissions by passing a resolution in 2007 to endorse the U.S. Conference of Mayors Climate Protection

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<sup>1</sup><http://www.cityofrichmondgeneralplan.org/news.php?display=1&oid=1000000768>, viewed February 17, 2009.

<sup>2</sup>More than 1,000 cities, towns, counties, and their associations in 68 countries currently comprise ICLEI's membership. ICLEI works with these local governments through international performance-based, results-oriented campaigns and programs. ICLEI's basic premise is that locally designed initiatives can provide an effective and cost-efficient way to achieve local, national, and global sustainability objectives.

ICLEI's Cities for Climate Protection (CCP) Campaign was launched in 1993 when municipal leaders, invited by ICLEI, met at the United Nations in New York and adopted a declaration that called for the establishment of a worldwide movement of local governments to reduce GHGs, improve air quality, and enhance urban sustainability.

Agreement and in 2008 by committing to the greenhouse gas reduction targets established in AB 32 and becoming a signatory to the Urban Environmental Accords in 2008.<sup>1</sup>

## 16.3 IMPACTS AND MITIGATION MEASURES

### 16.3.1 Significance Criteria

As indicated in sections 16.2.1(d) and (e), OPR has advised that lead agencies should determine whether GHGs may be generated by a proposed project, and if so, quantify or estimate the GHG emissions by type and source. In the case of this redevelopment plan amendment EIR, this should involve determination of the redevelopment plan amendment-related change in GHG emissions from activities occurring or generated within the city. Second, the CEQA Guidelines indicate that lead agencies must assess whether those emissions are individually or cumulatively significant. When assessing whether a project's effects on climate change are "cumulatively considerable" even though its GHG contribution may be individually limited, the lead agency must consider the impact of the project when viewed in connection with the effects of past, current, and probable future projects. Finally, if the lead agency determines that the GHG emissions from the project as proposed are individually or cumulatively significant, it must identify and implement measures to avoid, reduce, or otherwise mitigate the impacts of those emissions.

Although the BAAQMD is currently developing significance criteria for evaluating a project's contribution to climate change, no criteria have yet been adopted by a state or regional agency. The most recent guidance is provided by the June 2008 OPR Technical Report and April 2009 OPR draft Proposed Amendments to CEQA Guidelines discussed in sections 16.2.1(d) and (e) above. Based on this OPR guidance, for the purposes of this EIR, the proposed redevelopment plan amendment, including plan amendment-associated growth-inducing effects, would be considered to have a significant climate change impact if they would:

- (a) generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment;
- (b) have a cumulatively considerable significant GHG emissions contribution that would conflict with the adopted GHG emissions goal of the State as set forth in Assembly Bill 32 (AB 32), the Global Warming Solutions Act of 2006--i.e., conflict with the adopted goal of reducing state GHG emissions to 1990 levels by the year 2020, or conflict with the CARB's Climate Change Scoping Plan;
- (c) conflict with any other applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases; or
- (d) be adversely affected by sea level rise. (As indicated above, the most recent study of the California coastline predicts that San Francisco Bay water levels will rise by up to 55 inches by the end of the 21st century.)

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<sup>1</sup>City of Richmond, City of Richmond 2005 Greenhouse Gas Emissions Inventory, February 2009, page 31. (<http://www.ci.richmond.ca.us/DocumentView.asp?DID=4279>)

The OPR Technical Advisory released in June 2008<sup>1</sup> lists *Examples of GHG Reduction Measures*. Measures from the list that are applicable to the project are listed in Table 16.3 of this EIR chapter.

### **16.3.2 Impacts and Mitigation Measures**

Redevelopment Plans (and amendments) and associated community development and redevelopment activities can contribute to cumulative climate change effects by facilitating or directly generating increased GHG emissions from project-related demolition, construction, and development intensification. The principal GHGs associated with land use development activity and intensification are carbon dioxide, methane, nitrous oxide, and water vapor. In addition, ozone, which is not directly emitted, but formed from other gases in the troposphere (the lowest level of the earth's atmosphere), also contributes to retention of heat.

Land use planning is considered to be a critical component of lowering GHG emissions. Examples of GHG emissions reduction planning techniques include locating the most intensive residential development near alternative transportation modes (regional and local transit), employment centers, and support commercial centers, and similarly, locating the most intensive employment development near alternative transportation modes (regional and local transit), residential concentrations, and support commercial centers.

The proposed redevelopment plan amendment would increase GHG emissions, relative to existing conditions, by facilitating industrial, commercial, and residential growth in the Merged Project Area, and associated increases in the number of residents, shoppers, and employees within the area, thereby increasing daily stationary emissions from industrial/commercial and residential development, and daily transportation emissions associated with the movement of people and goods to and from the Merged Project Area. Project-related greenhouse gas emissions increases would include emissions from project-facilitated additional industrial/commercial activities and residential development, exhaust emissions associated with related increases in vehicular trips, emissions from associated solid waste disposal, construction emissions from construction vehicles and machinery, and emissions from the generation of electricity to operate anticipated future rehabilitated and new industrial, commercial, and residential buildings. Project-facilitated construction activity would also result in emissions of unknown quantities of greenhouse gases from the manufacture and transportation of building materials.

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<sup>1</sup>State of California, Governor's Office of Planning and Research, *Technical Advisory, CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act Review* (CEQA TA), June 19, 2008; page 1.

**Impact 16-1: Project-Related and Cumulative Increase in Greenhouse Gas Emissions.** Growth facilitated by the proposed redevelopment plan amendment would result in a net increase in citywide carbon dioxide and other GHG emissions, even though land use and building rehabilitation activities encouraged by the plan amendment would be highly consistent with current consensus strategies to reduce transportation emissions (vehicle miles traveled) and industrial, commercial, and residential energy use-related GHG emissions over time. In particular, by facilitating development in the highly-urbanized Merged Project Area in accordance with the Richmond General Plan, the proposed plan amendment would serve to encourage infill development and reduce sprawl. Nevertheless, the redevelopment plan amendment is intended to facilitate an increase in the rate of commercial and industrial development in the Merged Project Area. Table 16.2 summarizes the results of an ICLEI-conducted Richmond emissions forecast for 2020, in comparison to estimated 2005 emissions levels. As shown, under a "business as usual" scenario, the Richmond greenhouse gas emissions level due to anticipated General Plan-based growth in the residential, commercial/industrial, transportation, and waste generation sectors is projected to increase by approximately 1,779,403 metric tons (30.4 percent). The commercial/industrial sector is projected to account for by far the largest portion, approximately 92 percent (1,639,702 metric tons) of the total increase, and most of this 2005-2020 commercial/industrial growth in Richmond is expected to occur within the Merged Project Area. By facilitating such additional commercial/industrial as well as residential growth in the Merged Project Area, the proposed redevelopment plan amendment would therefore be expected to result in a **significant project and cumulative global climate change impact** (see criteria (a) and (b) in section 16.3.1, "Significance Criteria," above).

**Mitigation 16-1.** The proposed Plan Amendment would provide funding assistance towards planned transit improvements and would foster such additional greenhouse gas emission reduction measures as transit proximity, mixed-use, and integration of housing, civic, and jobs/housing proximity. Redevelopment plan amendment-facilitated growth in the Merged Project Area would also be required to comply with the anticipated Energy and Climate Change element policies now being prepared by the City as part of its current General Plan update program. In the interim, project-related discretionary residential, commercial and industrial development approvals should be encouraged to incorporate an appropriate combination of the following greenhouse gas emissions reduction measures (from Table 16.3):

- features in the project design that would accommodate convenient public transit;
- adoption of a project design objective to achieve Leadership in Energy and Environmental Design (LEED) New Construction "Silver" Certification or better, in addition to compliance with California Code of Regulations Title 24 Energy Efficient Standards;

**(continued)**

**Mitigation 16-1 (continued):**

- planting of trees and vegetation near structures to shade buildings and reduce energy requirements for heating and cooling;
- preservation or replacement of existing onsite trees;
- construction and demolition waste recycling;
- tenant incentives to increase recycling and reduce generation of solid waste;
- replacement of project exterior lighting, street lights and other electrical uses with energy efficient bulbs and appliances; etc.

Implementation of appropriate combinations of these mitigation measures in individual plan amendment-facilitated developments would substantially reduce project-related greenhouse gas emissions impacts. However, because the effectiveness of this mitigation program in reducing the project-related contribution to cumulative greenhouse gas emissions in the region cannot be reasonably quantified, it has been determined that the project, when combined with anticipated overall cumulative development in the region as a whole, would potentially produce a substantial net increase in greenhouse gas emissions, representing a ***significant unavoidable project and cumulative climate change impact***.

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**Sea Level Rise Impacts on Project-Facilitated Development.** The City adjoins San Francisco and San Pablo bays (see Figure 3.1 in chapter 3, Project Description). Chapter 12, Drainage and Water Quality, discusses general flooding potential in the Merged Project Area. In addition, as indicated in section 16.1.2(e) herein (Existing Conditions, Sea Level Rise), rising sea levels in San Francisco Bay pose a threat of future flooding in bayside lands. World-wide climate changes are causing sea levels in California coastal areas to rise. About 8 inches of increase have been recorded at the Golden Gate Bridge over the past 100 years, threatening low coastal areas in the Bay region with inundation and serious damage from storms.<sup>1</sup>

According to sea level rise maps produced by the San Francisco Bay Conservation and Development Commission (BCDC), the Central Bay East Shore, including the Richmond shoreline, is expected to be vulnerable to a 55-inch rise in Bay water level by the end of the century.<sup>2</sup>

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<sup>1</sup>CARB Draft Scoping Plan, page 6.

<sup>2</sup>BCDC has produced a three-map series to illustrate two sea level rise scenarios. The series depicts (1) a mid-century sea level rise of 16 inches, (2) an end-of-century sea level rise of 55 inches, and (3) a composite of both 16 and 55 inches.

Table 16.2  
 CITYWIDE "BUSINESS AS USUAL" GREENHOUSE GAS EMISSIONS INCREASE PROJECTION--2005 TO 2020

Potential Sources	2005		2020		Annual Growth Rate	Percent Change 2005 to 2020
	Equiv. CO <sub>2</sub> e (metric tons)	Percentage of Total	Equiv. CO <sub>2</sub> e (metric tons)	Percentage of Total		
<i>Stationary Sources:</i>						
Residential	126,118	2.2%	137,538	1.8%	0.58%	9.1%
Commercial/Industrial	5,141,572	87.8%	6,781,274	88.8%	1.86%	31.9%
<i>Subtotals</i>	<i>5,267,690</i>	<i>90.0%</i>	<i>6,918,812</i>	<i>90.6%</i>	--	<i>31.3%</i>
Transportation Sources	506,842	8.7%	647,863	8.5%	1.65%	27.8%
Solid Waste Sources	78,488	1.3%	65,747	0.9%	0.58%	-16.2%
<b>TOTALS</b>	<b>5,853,020</b>	<b>100.0%</b>	<b>7,632,423</b>	<b>100.0%</b>	--	<b>30.4%</b>

SOURCE: City of Richmond 2005 Greenhouse Gas Emissions Inventory report, City of Richmond and ICCLEI, February 2009; p. 19.

Table 16.3  
**PROJECT CONSISTENCY WITH APPLICABLE STATE OPR-IDENTIFIED GHG REDUCTION MEASURE EXAMPLES**

GHG Reduction Measure Examples from State of California  
 Governor's Office of Planning and Research (OPR)<sup>1</sup>

Project Consistency

*Land Use and Transportation Measures:*

- Implement land use strategies to encourage jobs/housing proximity, promote transit-oriented development, and encourage high density development along transit corridors. Encourage compact, mixed-use projects, forming urban villages designed to maximize affordable housing and encourage walking, bicycling and the use of public transit systems.

*Consistent.* Plan amendment direct actions and plan amendment-facilitated growth characteristics would implement this measure.
- Encourage infill, redevelopment, and higher density development, whether in incorporated or unincorporated settings.

*Consistent.* Plan amendment direct actions and plan amendment-facilitated growth characteristics would implement this measure.
- Encourage new developments to integrate housing, civic and retail amenities (jobs, schools, parks, shopping opportunities) to help reduce VMT resulting from discretionary automobile trips.

*Consistent.* Plan amendment direct actions and plan amendment-facilitated growth characteristics would implement this measure.
- Apply advanced technology systems and management strategies to improve operational efficiency of transportation systems and movement of people, goods and services.

Not applicable to the proposed redevelopment plan amendment.
- Incorporate features into project design that would accommodate frequent, reliable and convenient public transit.

*Consistent.* Plan amendment direct actions and plan amendment-facilitated growth characteristics would implement this measure.
- Implement street improvements designed to relieve pressure on a region's most congested roadways and intersections.

*Consistent.* Plan amendment direct actions and plan amendment-facilitated growth characteristics would implement this measure. In addition, mitigation measures are identified in chapter 6, Transportation and Circulation, to relieve roadway and intersection congestion.
- Limit idling time for commercial vehicles, including delivery and construction vehicles.

Such measures would need to be implemented on a citywide basis, perhaps as part of the City's anticipated Climate Action Plan, rather than within the Merged Project Area only.

*Urban Forestry Measures:*

- Plant trees and vegetation near structures to shade buildings and reduce energy requirements for heating/cooling.

Mitigation 16-1 calls for implementation of this measure as a possible condition of Redevelopment Agency assistance.

GHG Reduction Measure Examples from State of California  
Governor's Office of Planning and Research (OPR)<sup>1</sup>

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- Preserve or replace onsite trees (that are removed due to development) as a means of providing carbon storage.

*Energy Conservation Policies and Actions:*

- Replace traffic lights, street lights, and other electrical uses to energy efficient bulbs and appliances.
- Incorporate on-site renewable energy production, including installation of photovoltaic cells or other solar options
- Retrofit municipal water and wastewater systems with energy efficient motors, pumps and other equipment, and recover wastewater treatment methane for energy production.
- Offer government incentives to private businesses for developing buildings with energy and water efficient features and recycled materials. The incentives can include expedited plan checks and reduced permit fees.
- Offer rebates and low-interest loans to residents that make energy-saving improvements on their homes.
- Create bicycle lanes and walking paths directed to the location of schools, parks and other destination points.

Project Consistency

Mitigation 16-1 calls for implementation of this measure as a possible condition of Redevelopment Agency assistance.

Mitigation 16-1 calls for implementation of this measure as a possible condition of Redevelopment Agency assistance.

Mitigation 16-1 calls for implementation of this measure as a possible condition of Redevelopment Agency assistance.

Water service to the city and Merged Project Area is provided by the East Bay Municipal Utility District (EBMUD). Wastewater treatment service to the city and Merged Project Area is provided by three sewer districts: the Richmond Municipal Sewer District (RMSD), West County Wastewater District (WCWD) and Stege Sanitary District (SSD). Therefore, such measures would need to be implemented by the EBMUD, RMSD, WCWD and SSD .

Such measures would need to be implemented on a citywide basis, perhaps as part of the City's anticipated Climate Action Plan, rather than within the Merged Project Area only.

Such measures would need to be implemented on a citywide basis, perhaps as part of the City's anticipated Climate Action Plan, rather than within the Merged Project Area only.

Such measures are already included in the City-adopted Richmond General Plan *Circulation Element* and proposed in the Current Draft Richmond General Plan Update *Circulation Element*.

GHG Reduction Measure Examples from State of California  
Governor's Office of Planning and Research (OPR)<sup>1</sup>

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Project Consistency

*Programs to Reduce VMT:*

- Encourage large businesses to develop commute trip reduction plans that encourage employees who commute alone to consider alternative transportation modes.
- Develop shuttle systems around business district parking garages to reduce congestion and create shorter commutes.
- Create an online ridesharing program that matches potential carpoolers immediately through email.

Such measures would need to be implemented on a citywide basis, perhaps as part of the City's anticipated Climate Action Plan, rather than within the Merged Project Area only.

Public transit service exists within the Merged Project Area. More localized shuttle system measures, if warranted, would need to be implemented on a citywide basis, perhaps as part of the City's anticipated Climate Action Plan, rather than within the Merged Project Area only.

Such measures would need to be implemented on a citywide basis, perhaps as part of the City's anticipated Climate Action Plan, rather than within the Merged Project Area only.

*Programs to Reduce Solid Waste:*

- Create incentives to increase recycling and reduce generation of solid waste by residential users.
- Implement a Construction and Demolition Waste Recycling Ordinance to reduce the solid waste created by new development.

The City has adopted goals and programs in place which are expected to exceed mandated diversion rates. See sections 7.7.1(b) (Recycling) and 7.7.2 (Pertinent Plans and Policies), General Plan Policy CF-H.9 and Implementation Program CF-H6.

The City has adopted a mandatory construction demolition waste diversion and recycling program, in cooperation with the West Contra Costa Integrated Waste Management Authority. See section 7.7.1(b), Joint Solid Waste Management Program, as described in chapter 7 of this EIR.

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SOURCE: Wagstaff and Associates, 2009.

GHG = Greenhouse Gas, VMT = Vehicle Miles Traveled

<sup>1</sup> State of California Governor's Office of Planning and Research, *Technical Advisory, CEQA and Climate Change: Addressing Climate Change Through CEQA Review*; June 19, 2008; Attachment 3: Examples of GHG Reduction Measures.

The Richmond General Plan contains policies and implementation programs that address flooding and sea level rise (Policies GM-B.1, GM-B.2, OSC-H.1, OSC-I.1, OSC-I.3, SF-C.1, SF-C.3, SF-C.4, and SF-C.5; and Implementation Programs OSC-I.1, OSC-I.3, SF-C.1, SF-C.4, SF-C.5, SF-C.6, and SF-C.7). These policies and programs are listed in section 12.2.5 of this EIR. These provisions include policies requiring new development to install and maintain flood control measures to reduce damage from sea level rise (Policy SF-C.1), including adequate floor elevations and other site improvements (Policy SF-C.4); and City monitoring and inspection of existing and proposed developments in areas prone to sea level rise (Implementation Program SF-C.4).

Because the proposed redevelopment plan amendment and the projected plan amendment-facilitated growth scenario are consistent with General Plan land use designations, this potential impact, at General Plan buildout, would be the same with or without the redevelopment plan amendment. Under the proposed plan amendment, however, development would occur at an increased rate within the Merged Project Area than without the project. Potential impacts associated with future development in areas that may be subject to sea level rise include risk to public safety and property damage.

Chapter 12, Drainage and Water Quality, of this EIR acknowledges that project-facilitated development could be subject to flooding, but concludes that the City's extensive policies and programs for development in floodprone areas would ensure that the effects of flooding would be a **less-than-significant impact**. This conclusion also applies to impacts from any future sea level rise, as City policies and programs would ensure that new development includes flood control measures and that the City monitors and inspects existing and proposed developments in areas prone to sea level rise.

**Mitigation for Sea Level Rise Impacts on Project-Facilitated Development.** No significant impact from sea level rise has been identified; no mitigation is required.

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**Other Impacts on Project-Facilitated Development Related to Global Climate Change.** As stated earlier in this chapter, climate change effects expected in California over the next century could reduce water supply and increase electricity demand (particularly in the summer months). Impacts on project-facilitated development from global climate change could include reduced water availability due to droughts. At this time, the effects of global climate change on local water supplies are not known. However, all development facilitated by the redevelopment plan amendment would incorporate policies, programs, and regulations to mitigate potential impacts on water supply, as explained in the Richmond General Plan EIR. As further discussed in chapter 7, Infrastructure and Public Services, of this EIR, these provisions would be applied to individual development projects as they are proposed and approved and would allow consideration of project-specific issues. Since the proposed redevelopment plan amendment would not increase water demand beyond what could already occur, and since future development would be subject to City plans, regulations, and requirements for environmental review, the project's water supply impact and its contribution to cumulative impacts would be **less than significant**, as discussed in chapter 7 of this EIR.

Energy use within the Merged Project Area and citywide could rise during hot summer months when building cooling demands increase. In the event regional energy demand during such periods exceeded supply, temporary power supply interruptions could occur. This eventuality would represent primarily a public-convenience and economic rather than an environmental impact (i.e., a **less-than-significant project and cumulative impact**). In addition, energy

efficiency measures, identified in the Richmond General Plan, and recommended in Mitigation 16-1 above would help to reduce energy demand in the Merged Project Area.

**Mitigation for Other Impacts on Project-Facilitated Development Related to Global Climate Change.** No significant impact has been identified; no mitigation is required.

#### **16.3.4 Cumulative Climate Change Impacts**

As indicated in section 18.4 (Cumulative Impacts) of this EIR, the Richmond city boundaries constitute the geographic scope of the analysis of "cumulative impacts" for most environmental issues addressed in this EIR. Because of the regional context of air quality and transportation issues, the EIR analysis of "cumulative impacts" for these two topics includes consideration of effects occurring in the regional context. Because of the regional, state, national and global context of climate change issues, the EIR "cumulative impact" analysis for this topic includes consideration of the effects of increases in GHG emissions from the project combined with citywide, regional, state, national and even worldwide increases.

As described earlier in this chapter, anticipated cumulative GHG emissions increases would have a **potentially significant** environmental impact. As discussed under Impact 16-1, although the project incorporates many features that will tend to reduce the associated net increase in greenhouse gas emissions, it would nevertheless result in a substantial net increase in GHG, contributing to a **significant unavoidable cumulative climate change impact**.

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## 17. PROJECT CONSISTENCY WITH LOCAL AND REGIONAL PLANS

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Section 15125(d) of the CEQA Guidelines requires EIRs to "...discuss any inconsistencies between the proposed project and applicable general plans and regional plans." The objective of such a discussion is to find ways to modify the project if warranted to reduce any identified inconsistencies with relevant plans and policies. Pursuant to section 15125(d), this EIR chapter evaluates the consistency of the proposed Richmond redevelopment plan amendment program with pertinent goals and policies of relevant adopted local and regional plans.

### 17.1 CITY OF RICHMOND GENERAL PLAN

All activities undertaken by a redevelopment agency, including all development activities facilitated by a redevelopment plan or redevelopment plan amendment, must be consistent with the goals and policies of the community's general plan. The City of Richmond General Plan, as adopted in August 1994 and revised to date, plays a central planning role in consolidating city land use and environmental issues, goals, and objectives into one set of development policies. The *Land Use Element* of the General Plan includes a Land Use Map and an associated set of land use designations, goals, policies, and guidelines. General Plan land use designations, goals, policies, and guidelines are expressly incorporated into the proposed Richmond redevelopment plan amendment and would govern all development actions set forth in or facilitated by the proposed redevelopment plan amendment.

Each environmental analysis chapter of this EIR (Land Use; Population, Housing, and Employment; Transportation and Circulation; Infrastructure and Public Services; Aesthetics; etc.), includes a section ("Pertinent Plans and Policies") that describes applicable General Plan policies that were adopted for the purpose of avoiding or mitigating a pertinent environmental effect.<sup>1</sup> If the project or its potential environmental effects were found in this EIR to be potentially inconsistent with one or more of these currently adopted City of Richmond General Plan policies, a potentially significant environmental impact would be identified and one or more mitigations would be recommended as necessary to reduce the impact and implement the identified policy or policies. However, no such finding of project inconsistency with an adopted General Plan environmental policy has been made.

The City is currently in the process of preparing a comprehensive General Plan update. On Thursday, August 6, 2009, the City of Richmond Planning Commission held a public meeting to take comments on the draft version of the new General Plan.

Upon adoption, the policies of the new General Plan will supersede those of the current General Plan assumed in this EIR; however, the increment of growth between now and the year 2030 that would be permitted by the General Plan update is not expected to deviate substantially from the levels of Plan Amendment-related and cumulative growth assumed in this EIR. The

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<sup>1</sup>CEQA Guidelines section 15125(d) and Appendix G, item IX(b).

framework of currently-adopted General Plan policies adopted for the purpose of avoiding or mitigating environmental effects, which are referenced throughout this EIR, is expected to be reinforced and expanded upon in the new General Plan, resulting in General Plan-governed growth characteristics that will result in degrees of environmental impact less than anticipated in this EIR under the current General Plan.

Meanwhile the current City of Richmond General Plan Land Use Element, as adopted in August 1994 and as revised through May 1998, continues to play a central planning role in correlating all city land use issues, goals, and objectives into one set of development policies.

## **17.2 OTHER PERTINENT LOCAL PLANS**

In addition to the City of Richmond General Plan, other adopted local plans--including the City Center Specific Plan, North Richmond Shoreline Area Specific Plan, and Knox Freeway/Cutting Boulevard Corridor Specific Plan--control land use and protect the environment in the Merged Project Area. By law (California Government Code section 65454), each of these specific plans must be consistent with the City's General Plan. In turn, as previously indicated in section 17.1, by law, all activities undertaken by a redevelopment agency, including all development activities facilitated by a redevelopment plan or redevelopment plan amendment, must be consistent with the General Plan. Therefore, these specific plans in combination with the City's General Plan would govern all development actions set forth in or facilitated by the proposed redevelopment plan amendment.

## **17.3 PERTINENT REGIONAL PLANS**

### **17.3.1 ABAG's San Francisco Bay Trail Plan**

The San Francisco Bay Trail is a designated 400-plus mile shared-use path system proposed by the Association of Bay Area Governments (ABAG) intended to eventually provide for continuous travel around the bay for walkers, bicyclists, and other outdoor enthusiasts. The Trails for Richmond Action Committee (TRAC) has reported that Richmond now includes approximately 20 miles of Bay Trail in use, more than any other city on the planned 40-plus mile network. Existing local segments of the San Francisco Bay Trail include (1) segments connecting the Brickyard Cove, Marina Bay, and Point Isabel areas in the southern part of the Merged Project Area and vicinity; (2) a segment extending along Richmond Parkway (Garrard Boulevard); (3) a segment located south of the West County Landfill outside the Merged Project Area; and (4) segments extending along Atlas Road and around Point Pinole north of the Project Area. The following planned extensions of the Bay Trail are located within or near the Merged Project Area:<sup>1</sup>

- a "Richmond Greenway Trail" segment running east-west along Ohio Avenue through the central Richmond portion of the Merged Project Area, linking the Del Norte BART station in El Cerrito to the east with the San Pablo Peninsula to the west;

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<sup>1</sup>Association of Bay Area Governments, "San Francisco Bay Trail" map, Carquinez Strait – Vallejo to Richmond section, [http://baytrail.abag.ca.gov/maps/Carquinez\\_Strait.pdf](http://baytrail.abag.ca.gov/maps/Carquinez_Strait.pdf), viewed March 31, 2009.

- east-west Bay Trail segments in the vicinity of Seaclyff Drive in the southern Richmond portion of the Merged Project Area, linking a planned north-south segment along Canal Boulevard to the existing Marina Bay segment of the trail; and
- a Bay Trail segment along the city's west, San Pablo Peninsula shoreline from Point Richmond to the San Pablo Yacht Harbor, traversing the shoreline edges of the Terminal 4 and Point San Pablo Yacht Harbor portions of the Merged Project Area;
- extensions of the Bay Trail near the West County Landfill, located outside the Merged Project Area; and
- extensions of the Bay Trail north of Richmond Parkway in the vicinity of Goodrick Avenue, in the northern part of the Merged Project Area.

Future redevelopment-facilitated development would be encouraged to accommodate compatible implementation of these ABAG-proposed trail extensions. Chapter 8, Aesthetics, of this EIR includes an identified project-related impact and mitigation need--*Impact 8-5 and Mitigation 8-5*--pertaining to planned Bay Trail segments along the Terminal 4 and Point San Pablo Yacht Harbor shorelines. Implementation of *Mitigation 8-5* will be necessary to ensure project consistency with ABAG's Bay Trail planning.

### **17.3.2 BCDC's San Francisco Bay Plan**

The San Francisco Bay Conservation and Development Commission (BCDC) has state-authorized "Bay jurisdiction" over San Francisco Bay and all territory located between the bay shoreline and a line 100 feet inland of and parallel with the shoreline. Within its area of jurisdiction, BCDC is authorized to control both (1) bay filling and dredging, and (2) bay-related shoreline development. BCDC is authorized to issue or deny permits for any development activity within its bay jurisdiction. Any project-facilitated work or development within the 100-foot shoreline band may require a new, or renewal of an existing, BCDC permit.

BCDC permit eligibility and conditions of permit issuance are largely governed by the San Francisco Bay Plan, completed and adopted by BCDC in 1968 and amended regularly since then. The plan was most recently amended in January 2008. The Bay Plan contains findings and policies related to fish and wildlife, water quality, fill, recreation, public access, and the appearance and design of shorelines, as well as procedures for BCDC control of filling, dredging, and shoreline development. The Bay Plan also identifies "Priority Use Areas," i.e., shoreline areas designated for uses that must be located on the waterfront, such as ports and waterfront parks.

In Richmond, the BCDC area of jurisdiction includes a 100-foot shoreline band along the proposed Terminal 4 and Point San Pablo Yacht Harbor subareas as well as other shoreline portions of the Merged Project Area. In addition, BCDC has designated Richmond's port as a "Port Priority Use Area" that is to be reserved for marine terminal and directly related ancillary uses, such as container freight stations, transit sheds and other temporary storage, ship repairing, support transportation uses including trucking and railroad yards, freight forwarders,

government offices related to port activity, chandlers, and marine services.<sup>1</sup> (See discussion of BCDC's San Francisco Bay Area Seaport Plan below.)

The proposed project would need to comply with Bay Plan provisions for the portions of the Merged Project Area that are within BCDC jurisdiction. The project is not expected to create any inconsistencies with Bay Plan provisions.

### **17.3.3 BCDC's San Francisco Bay Area Seaport Plan**

BCDC's 1996 San Francisco Bay Area Seaport Plan, prepared jointly with the Bay Area Metropolitan Transportation Commission (MTC), as amended through January 2007, constitutes the maritime element of the MTC's Regional Transportation Plan and has been incorporated into BCDC's San Francisco Bay Plan as the basis for Bay Plan port policies. MTC uses the Seaport Plan to assist in making funding decisions and managing the metropolitan transportation system. BCDC uses the Seaport Plan to help guide its regulatory decisions on permit applications, consistency determinations, and related matters.

The Seaport Plan includes findings and policies for the Port of Richmond, which includes the portion of the Merged Project Area that adjoins the Santa Fe Channel and Harbor Channel in southern Richmond. The Seaport Plan sets targets for the port's annual cargo throughput capabilities for the year 2020 and establishes policies for the use of various terminals, including the ARCO Terminal, the Kinder-Morgan berth, and Terminals 5, 6, 7, and 12.<sup>2</sup>

The proposed project would need to comply with Seaport Plan provisions for the portion of the Merged Project Area that is within the Seaport Plan boundary. The project is not expected to create any inconsistencies with Seaport Plan provisions.

### **17.3.4 South Richmond Shoreline Special Area Plan**

The 1977 South Richmond Shoreline Special Area Plan (SAP) was prepared as part of a cooperative effort between BCDC and the City of Richmond. The Richmond City Council adopted the SAP as an amendment to the Richmond General Plan, and BCDC adopted the SAP as an amendment to the Bay Plan. The SAP contains amendments through August 20, 1987. The SAP applies to the Santa Fe Channel/Harbor Channel and Inner Harbor Basin portions of the Merged Project Area, as well as to other parts of southern Richmond that are outside the Merged Project Area. The SAP contains policies for land use, public access, design, and circulation in these areas. For the Inner Harbor Basin subarea, the SAP calls for a large marina, a major park, and public access. For the Santa Fe Channel/Harbor Channel subarea, the SAP calls for retaining the port priority use area designation and encouraging

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<sup>1</sup>Letter from Linda Scourtis, Coastal Planner, Bay Conservation and Development Commission, to Jonelyn Whales, City of Richmond, re. "Notice of Preparation (NOP) for the Richmond Redevelopment Plan Amendments Draft Environmental Impact Report (EIR), BCDC Inquiry File: CC.RH.7213.3; SCH#: 200572117," December 11, 2008.

<sup>2</sup>San Francisco Bay Conservation and Development Commission and Metropolitan Transportation Commission, San Francisco Bay Area Seaport Plan, April 18, 1996, as amended through January 2007, pages 31-33.

public access where feasible.<sup>1</sup> Since the SAP's adoption in 1977, many of its provisions have been implemented.

The proposed project would need to comply with SAP provisions for the portion of the Merged Project Area that is within the SAP boundary. The project is not expected to create any inconsistencies with SAP provisions, particularly since development within the Merged Project Area would be undertaken in accordance with Richmond General Plan land use designations and Zoning Ordinance regulations.

### **17.3.5 State Implementation Plan (California Air Resources Board)**

The California Air Resources Board (CARB) coordinates and oversees state and federal air quality control programs. The CARB's primary functions include establishing and updating the California ambient air quality standards, monitoring existing air quality, controlling emissions from mobile sources, and developing the State Implementation Plan. The State Implementation Plan is the state's overall air quality control strategy for both mobile and stationary sources. Control programs for these sources are carried out at the regional or county level. These policies have been considered in the completion of chapter 14 (Air Quality) of this EIR in evaluating the direct and indirect impacts of the project and project-facilitated growth on air quality.

### **17.3.6 ABAG's Regional Land Use Policy Framework**

The most recent regional land use policy document adopted by the Association of Bay Area Governments (ABAG) is entitled A Proposed Land Use Policy Framework for the San Francisco Bay Area, and was adopted by the ABAG Executive Board in July 1990. The document is described as a regional policy framework for future land use decisions in the Bay Area that respects the need for strong local control, but that also recognizes the importance of regional comprehensive planning for issues of regional significance. The document contains policies that (1) direct growth where regional infrastructure (e.g., freeways, transit, water, solid waste disposal, sewage treatment) is available and natural resources will not be overburdened; (2) encourage development that discourages long-distance commuting; (3) establish firm growth boundaries; and (4) encourage provision of housing at all levels.

The proposed Richmond redevelopment plan amendment program would be generally consistent with these policies, in that it (1) could be served by existing regional infrastructure systems, with improvements as described in chapter 6 (Transportation and Circulation), chapter 7 (Infrastructure and Public Services), and chapter 12 (Drainage and Water Quality); (2) would facilitate local employment growth and improved housing opportunities that together would assist the city in maintaining a relative balance between local jobs and employed residents, thereby reducing the need for long-distance commuting, as described in chapter 5 (Population, Housing, and Employment); and (3) would help to improve housing opportunities in Richmond, as described in chapter 5 (Population, Housing, and Employment).

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<sup>1</sup>South Richmond Shoreline Special Area Plan Citizens' Advisory Committee, South Richmond Shoreline Special Area Plan, adopted by the Richmond City Council on April 25, 1977 and adopted by the Bay Conservation and Development Commission on May 5, 1977, as amended through August 20, 1987, pages 4-5.



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## 18. CEQA-REQUIRED ASSESSMENT CONCLUSIONS

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This chapter summarizes the EIR in terms of the various assessment categories suggested by California Environmental Quality Act (CEQA) guidelines for EIR content. The chapter includes report findings with respect to "growth-inducing impacts," "unavoidable significant adverse impacts," "irreversible environmental changes," "cumulative impacts," and "effects found not to be significant."

### 18.1 GROWTH-INDUCING IMPACTS

Section 21100(b)(5) of CEQA requires that an EIR include information regarding the growth-inducing impact of the proposed project. Section 15126.2(d) of the CEQA Guidelines states that the discussion should include *"...the ways in which the proposed project could foster economic or population growth, or the construction of additional housing either directly or indirectly, in the surrounding environment."*

Merged Project Area growth inducement and increased economic activity and investment are intended impacts (i.e., goals) of the proposed 2009 Richmond Redevelopment Plan Amendment Program. If project objectives are successfully achieved, new development activities are expected to occur, including an increased intensity of residential, commercial, and industrial development in the Merged Project Area. This EIR conservatively assumes that proposed project actions may result in realization of Merged Project Area development levels consistent with full realization of Richmond General Plan land use designations. For purposes of "worst case" environmental impact analysis, the EIR assumes that the major portion of the actual physical redevelopment activities associated with the redevelopment program would be successfully completed over the next approximately 20 years, or by 2030, stimulating increased economic development and an increased rate of General Plan-permitted growth within the Merged Project Area over that period.

The primary growth-inducing impacts of the project would be confined within the boundaries of the Merged Project Area (see Figure 3.1). To a lesser degree, secondary growth-inducing impacts (the "multiplier" effect) could also be expected in portions of the city and subregion outside the Merged Project Area boundary. In particular, project-induced increases in local primary ("basic") jobs could be expected to have a "multiplier" effect, increasing overall employment totals and housing demands in the city and the surrounding subregion. In addition, project-facilitated infrastructure improvements, and some of the development projects that would be facilitated within the Merged Project Area, might induce additional pressure to intensify use of surrounding underused lands.

Secondary growth-inducing land use impacts of the project would occur primarily in the form of future individual development proposals and associated applications. Most of this primary and secondary growth inducement would be expected to occur in a manner consistent with the City of Richmond General Plan. Each such future project, with the exception of those that are exempt from CEQA, would also require applicant submittal and City review of associated

individual development applications, and under CEQA, would routinely involve project-specific environmental impact documentation and public review to ensure that any associated significant adverse impacts are adequately addressed. These standard requirements and procedures would be expected to reduce such secondary growth-inducement impacts of the project to less-than-significant levels, unless specific statements of overriding consideration were adopted consistent with CEQA.

## 18.2 UNAVOIDABLE SIGNIFICANT ADVERSE IMPACTS

CEQA section 21100(b) and CEQA Guidelines section 15126.2(b) require that the EIR discuss significant effects on the environment that cannot be avoided if the project is implemented. Unavoidable adverse impacts are those that would not be reduced to less-than-significant levels by the mitigation measures recommended in this EIR.

This EIR identifies the following significant unavoidable impacts of the proposed redevelopment plan amendment:

- **Impact 6-1: Peak Hour Operational Impacts on Intersections (With-Project Condition)** (see chapter 6, Transportation and Circulation, of this EIR);
- **Impact 14-2: Long-Term Regional Air Emissions Increases** (see chapter 14, Air Quality, of this EIR); and
- **Impact 16-1: Project and Cumulative Climate Change Impact** (see chapter 16, Climate Change, of this EIR).

For the remaining potentially significant impacts of the proposed redevelopment plan amendment, mitigation measures recommended in this EIR would be sufficient to reduce the impacts to less-than-significant levels.

## 18.3 IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA section 21100(b)(2)(B) and CEQA Guidelines section 15126.2(c) require that an EIR identify any significant irreversible changes that would result from implementation of the project. Section 15126.2(c) of the CEQA Guidelines states that the "*[u]ses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely.*" Section 15126.2(c) further states that "*[i]rretrievable commitments of resources should be evaluated to assure that such current consumption is justified.*"

The proposed 2009 Richmond Redevelopment Plan Amendment Program would consist of a series of actions, improvements, and development that would further land use intensification in the Merged Project Area. Due to the scale of the proposed project and the commitment of resources involved in its implementation, the various physical effects of the project would be considered "irreversible environmental changes." The future removal of project-facilitated land use and infrastructure changes, and associated impact reversals, would be highly unlikely, and therefore the various project-facilitated physical changes can be considered "irreversible."

Implementation of the proposed redevelopment plan amendment would result in an irreversible commitment of energy resources, primarily in the form of fossil fuels, including fuel oil, natural gas, and gasoline or diesel fuel for construction equipment and automobiles during demolition, construction, and ongoing use in the Merged Project Area. Because residential, commercial, and industrial development facilitated by the project would be required to comply with California Code of Regulations Title 24 and adopted City energy conservation policies, the project would not be expected to use energy in a wasteful, inefficient, or unnecessary manner.

The consumption or destruction of other nonrenewable or slowly renewable resources would also result during construction, occupancy, and use facilitated by the project. These resources would include but not be limited to lumber, concrete, sand, gravel, asphalt, masonry, metals, and water. Development facilitated by the redevelopment plan amendment would also irreversibly use water and solid waste landfill resources. However, development facilitated by the project would not involve a large commitment of those resources relative to supply, nor would it consume any of those resources wastefully, inefficiently, or unnecessarily, especially considering ongoing City and County recycling programs.

Development facilitated by the redevelopment plan amendment would contribute both directly and indirectly to long-term increases in greenhouse gas emissions, albeit to a lesser extent than if the same growth and development were to occur outside the central city and away from transit services and other central city amenities (e.g., recreation, shopping).

New site-specific development that may be stimulated by the redevelopment plan amendment would be subject, on a project-by-project basis, to independent CEQA review, during which time environmental impacts resulting from nonrenewable resource consumption would be analyzed and appropriate mitigation measures would be prescribed as needed to reduce such impacts to the extent feasible.

#### **18.4 CUMULATIVE IMPACTS**

CEQA Guidelines section 15130(a) requires that an EIR *"discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable..."* CEQA Guidelines section 15355 defines "cumulative impacts" as *"..two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts."* Substantial cumulative impacts most often result from the combined effect of past, present, and future projects that are located near the project under review. For example, the wastewater treatment demand generated by a project may not be significant when analyzed alone; however, when analyzed in combination with the wastewater demands of other approved or pending projects, the wastewater demands may exceed the resource capabilities of the service agency, resulting in a significant cumulative impact.

In the case of the proposed redevelopment plan amendment, cumulative impacts could result from redevelopment-facilitated development in the Merged Project Area, in combination with other anticipated development in the Richmond planning area. In some cases, where a particular resource covers a larger geographical area, the cumulative context extends beyond the boundaries of the city to include anticipated buildout in adjacent communities under adopted General Plans.

Cumulative effects on land use, population, housing, employment, transportation, infrastructure and public services, aesthetics, biological resources, cultural/historic resources, geology/soils,

drainage/water quality, noise, air quality, hazardous materials, and global climate change have been fully considered and are discussed in chapters 4 through 16 of this EIR. As noted where applicable in chapters 4 through 16, cumulative environmental impacts have also been addressed in the City-certified 1993 City of Richmond General Plan and Zoning Ordinance Updates Program EIR (State Clearinghouse #9203306). See chapters 4 through 16 for further discussion of the cumulative context and potential cumulative impacts by environmental topic area.

## **18.5 EFFECTS FOUND NOT TO BE SIGNIFICANT**

As stated in the Notice of Preparation of an EIR on the proposed 2009 Richmond Redevelopment Plan Amendment Program (see appendix 22.2), the City of Richmond determined that the project would have no impact or a less-than-significant impact on agricultural resources. This topic therefore is not assessed further in this program EIR.

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## 19. ALTERNATIVES TO THE PROPOSED PROJECT

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The potential environmental consequences of the proposed Richmond redevelopment plan amendment program have been analyzed in detail in this EIR. Five alternatives to the proposed plan amendment action are discussed in this chapter to provide a basis for further understanding of the environmental effects of the project and possible approaches to reducing identified significant impacts, and to meet CEQA requirements for EIR content.

CEQA Guidelines section 15126.6 (Consideration and Discussion of Alternatives to the Proposed Project) requires an EIR to *"...describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives."* CEQA Guidelines section 15126.6(b) states that, because the EIR must identify ways to mitigate or avoid the project's significant effects on the environment, *"...the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if those alternatives would impede to some degree the attainment of the project objectives, or would be more costly."*

CEQA Guidelines section 15126.6(d) indicates that the EIR discussion of the impacts of the identified alternatives is intended to be less detailed than the evaluation of the impacts of the proposed project. Following that guideline, the discussion of the comparative impacts of the five alternatives identified in this chapter are intentionally less detailed than the discussions of the significant effects of the proposed redevelopment plan amendment in chapters 4 through 17.

The current project consists of adoption and implementation of a proposed set of redevelopment plan amendments that would increase the limit on the amount of tax increment revenue that may be claimed by the Agency from the portions of the Merged Project Area subject to the current limit of \$521.4 million to \$1.06 billion and would increase the limit on the principal amount of bonded indebtedness secured by tax increment revenue that may be outstanding at any time, from the current (2005) limit of \$150 million for the Added Area and \$250 million for the remaining Merged Project Area, to a revised combined limit of \$1.61 billion. The project (redevelopment plan amendment) would also, among other things, update the list of redevelopment projects, programs and activities that may be undertaken by the Redevelopment Agency in the Merged Project Area.

Pursuant to CEQA Guidelines section 15126.6, this EIR chapter compares the following five alternatives to the proposed project:

- **Alternative 1: No Project--Existing Conditions.** CEQA Guidelines section 15126.6(e)(1) requires the specific alternative of No Project to "be evaluated along with its impact...to allow decision-makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project." CEQA Guidelines section 15126.6(e)(2) requires the No Project analysis to "discuss the existing conditions at the time the (EIR)

notice of preparation is published...as well as what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans."

Pursuant to these requirements, the Alternative 1 (No Project--No Development) evaluation in this chapter compares the effects of the proposed project with existing conditions, and Alternative 2 which follows below (No Project--Future Scenario Without Proposed Redevelopment Plan Amendment) compares the effects of the proposed project with "what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans" (CEQA Guidelines section 15126.6[e][2]).

- **Alternative 2: No Project--Future Scenario Without Proposed Redevelopment Plan Amendment.** This alternative compares the effects of the proposed project with what would reasonably be expected to occur in the foreseeable future under the City's current General Plan if the project were not approved. Under this alternative, the Agency's current redevelopment program would continue to be implemented under current fiscal and time limitations with no increase in the limit on the amount of bonded indebtedness that may be outstanding at any one time in the Merged Project Area (the "cap" would remain at the current \$150 million for the Added Area and \$250 million for the remaining Merged Project Area) with no increase in the tax increment cap of \$521.4 million to \$1.06 billion for the affected portions of the Merged Project Area and no associated update to the list of redevelopment projects, programs and activities that may be undertaken by the Agency in the Merged Project Area.
- **Alternative 3: Modified Redevelopment Assistance Emphasis.** This alternative would include a redevelopment plan amendment with an identical Merged Project Area, but with reduced Agency emphasis and expenditure on enhancement of commercial, retail, research and development (R&D), and industrial development opportunities; and a corresponding increase in Agency emphasis and expenditure on assistance with the expansion and upgrading of affordable housing opportunities in the community.
- **Alternative 4: Increase Financial Caps by Lesser Amounts.** This alternative would include a redevelopment plan amendment with an identical Merged Project Area, but with a smaller increase in the combined limit on the principal amount of bonded indebtedness secured by tax increment revenue that may be outstanding at any time in the Merged Project Area, and a corresponding reduced overall program of redevelopment projects, programs and activities that may be undertaken by the Agency in the Merged Project Area.
- **Alternative 5: Alternative Merged Project Area Location.** In response to CEQA Guidelines section 15126.6(f)(2) (Alternative Locations), alternative locations for the Merged Project Area have been considered but rejected as infeasible, as explained in section 19.5 herein.

Table 19.1 provides a consolidated, summary comparison of the environmental implications of the various identified project alternatives for all of the environmental issues considered in this EIR.

Table 19.1  
 ALTERNATIVES COMPARISON TO PROPOSED PROJECT: SUMMARY OVERVIEW<sup>1</sup>

<b>Alternatives</b>				
<b>Impact</b>	<b>Alternative 1: No Project-- Existing Conditions</b>	<b>Alternative 2: Future Scenario Without Project</b>	<b>Alternative 3: Modified Redevelopment Assistance</b>	<b>Alternative 4: Reduced Revenue Cap Increase</b>
<b>(a) Land Use and Planning</b>	No new environmental impacts. No benefits.	Reduced environmental impacts. Reduced Merged Project Area improvements.	Reduced environmental impacts. Fewer beneficial effects.	Reduced environmental impacts. Fewer beneficial effects.
<b>(b) Population, Housing and Employment</b>	No new environmental impacts. No benefits.	Reduced environmental impacts. Reduced affordable housing improvement.	Reduced environmental impacts. Fewer beneficial effects.	Reduced environmental impacts. Reduced beneficial affordable housing effects.
<b>(c) Transportation and Circulation</b>	No new environmental impacts. No benefits.	Reduced, but still potentially significant, environmental impacts. Remaining significant unavoidable impacts.	Reduced, but still potentially significant, environmental impacts. Remaining significant unavoidable impacts.	Reduced, but still potentially significant, environmental impacts. Remaining significant unavoidable impacts.
<b>(d) Infrastructure and Public Services</b>	No new environmental impacts. No benefits.	Reduced, but still potentially significant, impacts. Reduced infrastructure improvements.	Reduced, but still potentially significant, impacts. Reduced infrastructure improvements.	Reduced, but still potentially significant, impacts. Reduced infrastructure improvements.
<b>(e) Aesthetics/Community Design</b>	No new environmental impacts. No benefits.	Reduced environmental impacts. Fewer beneficial effects (reduced blight elimination and beautification).	Reduced environmental impacts. Fewer beneficial effects (reduced blight elimination and beautification).	Reduced environmental impacts. Fewer beneficial effects (reduced blight elimination and beautification).
<b>(f) Biological Resources</b>	No new environmental impacts.	Reduced environmental impacts.	Reduced environmental impacts.	Reduced environmental impacts.
<b>(g) Cultural and Historic Resources</b>	No new environmental impacts. No benefits.	Reduced potential for environmental impacts.	Reduced potential for environmental impacts.	Reduced potential for environmental impacts.

<sup>1</sup> Alternative 5 (Alternative Merged Project Area Location) is not included here because its implementation is considered infeasible (see section 19.5).

Table 19.1 (continued)  
 ALTERNATIVES COMPARISON TO PROPOSED PROJECT: SUMMARY OVERVIEW<sup>1</sup>

Impact	Alternatives			
	Alternative 1: No Project-- Existing Conditions	Alternative 2: Future Scenario Without Project	Alternative 3: Modified Redevelopment Assistance	Alternative 4: Reduced Revenue Cap Increase
<b>(h) Geology and Soils</b>	No new environmental impacts. No new benefits.	Reduced environmental impacts. Reduced building rehabilitation.	Reduced environmental impacts. Reduced building rehabilitation.	Reduced environmental impacts. Reduced building rehabilitation.
<b>(i) Drainage and Water Quality</b>	No new environmental impacts. No new benefits.	Reduced environmental impacts. Reduced infrastructure improvements.	Reduced environmental impacts. Reduced infrastructure improvements.	Reduced environmental impacts. Reduced infrastructure improvements.
<b>(j) Noise</b>	No new environmental impacts.	Reduced, but still potentially significant, environmental impacts.	Reduced, but still potentially significant, environmental impacts.	Reduced, but still potentially significant, environmental impacts.
<b>(k) Air Quality</b>	No new environmental impacts.	Reduced, but still potentially significant, environmental impacts. Remaining significant unavoidable impacts.	Reduced, but still potentially significant, environmental impacts. Remaining significant unavoidable impacts.	Reduced, but still potentially significant, environmental impacts. Remaining significant unavoidable impacts.
<b>(l) Climate Change</b>	No new environmental impacts. No new benefits.	Reduced, but still potentially significant, environmental impacts. Reduced beneficial effects. Remaining significant unavoidable impacts.	Reduced, but still potentially significant, environmental impacts. Reduced beneficial effects. Remaining significant unavoidable impacts.	Reduced, but still potentially significant, environmental impacts. Reduced beneficial effects. Remaining significant unavoidable impacts.
<b>(m) Hazards and Hazardous Materials</b>	No new environmental impacts. No new benefits. Current remediation would continue.	Reduced, but still potentially significant, environmental impacts. Fewer beneficial effects.	Reduced, but still potentially significant, environmental impacts. Fewer beneficial effects.	Reduced, but still potentially significant, environmental impacts. Fewer beneficial effects.
<b>(n) Consistency with Local and Regional Plans</b>	Partially consistent.	Substantially consistent, but reduced, implementation of various adopted General Plan policies.	Substantially consistent, but reduced, implementation of various adopted General Plan policies.	Substantially consistent, but reduced, implementation of various adopted General Plan policies.
<b>(o) Attainment of Project Objectives</b>	No attainment.	Limited attainment.	Partial attainment.	Partial attainment.

<sup>1</sup> Alternative 5 (Alternative Merged Project Area Location) is not included here because its implementation is considered infeasible (see section 19.5).

## **19.1 ALTERNATIVE 1: NO PROJECT--EXISTING CONDITIONS**

### **19.1.1 Principal Characteristics**

The No Project--No Development alternative would maintain existing conditions as described in the "Setting" sections of each environmental topic chapter in this EIR (e.g., 4.1--Land Use and Planning Setting, 5.1--Population, Housing and Employment Setting, 6.1-- Transportation and Circulation Setting, 7.1--Infrastructure and Public Services Setting, 8.1--Aesthetics Setting, etc.). There would be no Agency assistance with the construction and/or rehabilitation of public infrastructure and public facility improvements; no assistance to the repair, rehabilitation, installation and acquisition of public structures and amenities to help revitalize commercial and industrial areas; no facilitation of improvement to off-site infrastructure and circulation systems providing access to and within the Merged Project Area, including planned intersection improvements; no agency assistance to toxic remediation in the Merged Project Area; no assistance to community cultural arts and recreational facility improvements; no Agency-assistance to affordable housing; etc. The Merged Project Area would not be developed with Agency-assisted new or rehabilitated land uses, and all current activities, businesses, and industrial operations would remain into the foreseeable future, as would existing hazardous materials conditions, vacancies, and blight.

### **19.1.2 Alternative 1 Evaluation: Comparative Impacts and Mitigating Effects**

(a) Land Use and Planning. No environmental impacts. The existing urbanization pattern and on-site land use characteristics in the Merged Project Area would remain unchanged under the No Development alternative. The Merged Project Area would not be developed with new or rehabilitated land uses, and all current activities, businesses, and industrial operations would remain into the foreseeable future, as would existing hazardous materials conditions, vacancies, and blight. Although no significant land use impacts would result from this alternative, none of the land use benefits of the proposed project would be realized--e.g., no public infrastructure and facility improvements; no help towards retention, revitalization and expansion of commercial and industrial areas; no commercial rehabilitation assistance; no business development assistance; no affordable housing improvement assistance; etc.

(b) Population, Housing and Employment. No environmental impacts. No change in existing Merged Project Area housing, population, or employment characteristics would occur. No associated adverse environmental impacts (e.g., resulting from expanded commercial and industrial development, added affordable housing, and associated impacts on noise, traffic, air pollution, greenhouse gas emissions, etc.) would occur. On the other hand, the project's substantial housing, employment, affordable housing and associated economic benefits also would not occur.

(c) Transportation and Circulation. No environmental impacts. The No Development alternative would not result in any project-generated additional vehicular trips; conversely, none of the street/circulation improvement assistance actions proposed under the redevelopment plan amendment would be implemented.

(d) Infrastructure and Public Services. No environmental impacts. No project-related changes in public service or utility demands would occur, and no construction impacts resulting from project-related new utility infrastructure would occur. Conversely, the benefits resulting from project-proposed public service and infrastructure improvements (e.g., sewer, water and storm drainage system improvements) would also not be realized.

(e) Aesthetics. No environmental impacts. The existing visual character of the Merged Project Area would remain unchanged. Project-related impacts related to visual compatibility of new development with existing uses and project effects on community-wide visual quality would not occur. Conversely, project-related aesthetic improvements--for example, to dilapidated or abandoned buildings, to vacant, unimproved land, to public facilities and streetscapes--also would not occur. No Agency-assisted commercial, industrial, or residential building rehabilitation; street beautification, or recreational facility enhancement programs would be implemented.

(f) Biological Resources. No environmental impacts. There would be no project-related change in existing biological conditions in the Merged Project Area, including impacts on present and potentially present special-status species (including their habitats) and other biological resource values.

(g) Cultural and Historic Resources. No environmental impacts. No project-related impacts to known or as-yet-undiscovered paleontological, archaeological, or historic resources in the Merged Project Area would occur under the No Development alternative.

(h) Geology and Soils. New project-assisted development would not occur under this No Project Alternative, and therefore, fewer people and less improved property would be subject to seismic and soils related risks in the Merged Project Area. Conversely, the beneficial effects of project-funded commercial, industrial, recreational and residential building rehabilitation activity would also not occur.

(i) Drainage and Water Quality. No environmental impacts. No potentially project-related significant water quality, flooding, or storm drain system impacts would occur. Conversely, no project-proposed storm drain projects would be implemented.

(j) Noise. No environmental impacts. No project-related land use/noise environment incompatibilities would be introduced. No project-related demolition or construction period noise impacts would occur.

(k) Air Quality. No environmental impacts. No project-related construction period or long-term local or regional air emission impacts would occur.

(l) Hazards and Hazardous Materials. No environmental impacts. Hazardous materials conditions would remain as they currently exist in the Merged Project Area. Although no significant project-related hazards/hazardous materials impacts would occur under the No Development alternative, this alternative would not benefit from the environmental site clean-up assistance that would be provided under the redevelopment plan amendment. On the other hand, the amount of new development subject to existing hazardous materials risks, including exposure to the Chevron refinery risk zone, would also be reduced, at least in the near term

(m) Climate Change. No environmental impacts. No project-related additional greenhouse gas (GHG) emissions would be generated. Conversely, tax increment funding for GHG emissions reduction strategies would also not be available.

(n) Project Consistency with Local and Regional Plans. The No Development alternative would not proactively implement General Plan policies, objectives, and implementation

measures adopted for the purpose of avoiding or mitigating various environmental impacts, as described in chapter 17 of this EIR (Project Consistency With Local and Regional Plans).

(o) Attainment of Project Objectives. This alternative would not attain any of the project objectives described in section 3.2 (Project Objectives) of this EIR.

## **19.2 ALTERNATIVE 2: NO PROJECT--FUTURE SCENARIO WITHOUT PROPOSED REDEVELOPMENT PLAN AMENDMENT**

### **19.2.1 Principal Characteristics**

It is assumed under this alternative that future Richmond Community Redevelopment Agency-facilitated improvements in the community would be limited to those with remaining tax increment and bonded indebtedness funding under the current fiscally-merged redevelopment plans, without the larger stream of additional tax increment and increase in bonded indebtedness that would be realized with adoption of the proposed redevelopment plan amendment. Compared to the proposed redevelopment plan amendment, there would therefore be a substantially reduced rate of improvement in current economic and physical conditions in the Merged Project Area. Although it is not possible to quantify the exact amount of reduction in public and private development that would occur in the Merged Project Area under this No Project alternative, it is reasonable to assume that more existing blighting conditions would remain, and the Agency's limited remaining capabilities would attract a reduced level of additional private investment in the Merged Project Area. The anticipated increment of commercial, industrial and residential rehabilitation and development in the Merged Project Area would therefore be substantially lower than with the proposed project.

### **19.2.2 Alternative 2 Evaluation: Comparative Impacts and Mitigating Effects**

(a) Land Use and Planning. The degree of future development and redevelopment of underutilized land in the Merged Project Area would be substantially reduced under the No Redevelopment Plan Amendment alternative. Infrastructure improvements, land assembly, and other actions associated with the project would either not occur, or would occur at a substantially reduced degree and would soon be curtailed as the Agency reached its tax increment current bonded indebtedness limits. As a result, fewer existing land use compatibility problems in the Merged Project Area would be mitigated through redevelopment. More commercial and industrial land would continue to be underutilized.

With the much more limited level of future Agency-assisted blight alleviation, infrastructure improvement, aesthetic improvement, and commercial and industrial improvement and housing improvement, it is likely that blighting conditions in the Merged Project Area would continue to exist at a higher degree and for a substantially longer duration. Agency assistance would still be provided to the existing Merged Project Area under this alternative, but improvements would be more limited because the new and expanded redevelopment programs and actions described in this EIR would not be implemented.

Additional private commercial, industrial, and residential development in the Merged Project Area would likely not occur at the rate anticipated with the project; rather, it would occur at a substantially slower rate, with associated reductions in the degree of related land use impacts, both beneficial and adverse.

(b) Population, Housing and Employment. Population, housing, and employment would be expected to grow at a substantially slower rate in the Merged Project Area under this Future Development Scenario Without Proposed Redevelopment Plan Amendment alternative compared to the rate expected with the project, resulting in a reduced level of associated environmental impacts. The more limited or curtailed redevelopment assistance to the Merged Project Area under this alternative would reduce the rate of residential, commercial, and industrial development, and the increment of new housing units, residents, and jobs.

Because the availability of tax increment and bonded indebtedness under this alternative would be substantially reduced or curtailed, the 20 percent set-aside amount for affordable housing would also be substantially reduced or curtailed. The reduced level of project-associated housing assistance under this alternative would result in less financial support for providing housing affordable to low- and moderate-income households.

(c) Transportation and Circulation. Private development would be expected to occur at a slower rate in the Merged Project Area under the Future Development Scenario With No Redevelopment Plan Amendment alternative. However, the traffic-related attributes of residential/commercial mixed use development assisted by the redevelopment plan amendment (e.g., internalized trips, shorter commutes, increased transit use) would also not be realized. This alternative would also involve more limited Redevelopment Agency funding for transportation and circulation improvements in and serving the Merged Project Area.

(d) Infrastructure and Public Services. Proposed project-assisted infrastructure improvements would be more limited in the Merged Project Area. On the other hand, this alternative would result in less increased demand for public services, at least in the short-term, since new development in the Merged Project Area would not occur as quickly.

(e) Aesthetics. Due primarily to the reduced potential for new development under this alternative, the potential for new aesthetic and visual impacts would be reduced. Conversely, the beneficial aesthetic (visual) effects resulting from the proposed redevelopment plan amendment (e.g., additional blight reduction and beautification) would also not be realized.

(f) Biological Resources. Development in the Merged Project Area would be expected to occur at a slower rate under this alternative, and associated impacts on biological resources would be reduced or avoided.

(g) Cultural and Historic Resources. With a reduced rate of new development under this alternative, potential project-related impacts on cultural and historic resources would also be reduced or avoided in the Merged Project Area.

(h) Geology and Soils. Development would be expected to occur at a slower rate under the Future Development Scenario With No Project alternative, and therefore fewer people and a reduced level of new private and public improvements would be subject to identified seismic and soils related hazards in the Merged Project Area. However, the beneficial effects of project-funded building rehabilitation improvements, including seismic retrofit, would also not occur.

(i) Drainage and Water Quality. This alternative would reduce the adverse drainage system capacity and water quality effects associated with project-related development. However, the beneficial effects of project-funded storm drainage improvements would also not occur.

(j) Noise. Under this alternative, the demolition and construction period noise impacts directly associated with anticipated redevelopment actions (e.g., roadway improvements, new building construction) would be substantially reduced or curtailed. Associated site-specific construction noise impacts and exposures of new development to noise levels exceeding adopted standards would also be substantially reduced or eliminated.

(k) Air Quality. Under the Future Development Scenario With No Redevelopment Plan Amendment, the additional short-term demolition and construction period air quality impacts resulting from the proposed new and expanded redevelopment project actions (e.g., building rehabilitation, new development, infrastructure improvements) would not occur. The additional project-related significant unavoidable long-term local and regional air quality impacts associated with traffic and stationary sources would be eliminated.

(l) Hazards and Hazardous Materials. Under this alternative, there would be reduced funding for hazardous materials clean-up. On the other hand, the amount of new construction subject to hazardous materials exposure in the Merged Project Area would also be reduced. Remediation under ongoing non-redevelopment programs would continue until current funding limits are reached.

(m) Climate Change. The project-related significant unavoidable additional greenhouse gas emission increases identified in chapter 16 of this EIR (Climate Change) would not occur. Conversely, redevelopment-facilitated climate change benefits of project-facilitated residential/commercial mixed use development (e.g., internalized trips, trip reductions, shorter commutes, increased transit use) would also be curtailed. In particular, project-facilitated transportation and circulation benefits supporting transit and reducing congestion would not occur.

(n) Project Consistency with Local and Regional Plans. Similar to the proposed project, the Future Development Scenario With No Redevelopment Plan Amendment would remain consistent with existing land use plans and controls, including the Richmond General Plan and zoning ordinance. However, this alternative would not provide the additional redevelopment-generated tax increment funding to implement the new and expanded redevelopment-facilitated actions identified by the Agency as necessary to implement General Plan goals and objectives pertaining to environmental impact mitigation and remediation (e.g., mitigation of blight and hazardous materials conditions).

(o) Attainment of Project Objectives. This alternative would attain only to a limited degree the objectives identified in section 3.2 (Project Objectives) in chapter 3 (Project Description) of this EIR. The redevelopment plans for the existing Merged Project Area would remain in effect, but associated redevelopment activities would have to be substantially reduced or curtailed (continued funding from the tax increment and bonded indebtedness would cease in the very near future).

### **19.3 ALTERNATIVE 3: MODIFIED REDEVELOPMENT ASSISTANCE EMPHASIS**

#### **19.3.1 Principal Characteristics**

This alternative would include a similar redevelopment plan amendment for the Merged Project Area, but with reduced Agency emphasis and expenditure on enhancement of commercial, retail, research and development (R&D), and industrial development opportunities; and a

corresponding increase Agency emphasis and expenditure on assistance with the expansion and upgrading of housing opportunities in the community.

Under this alternative, it is also assumed that some components and actions of the proposed redevelopment plan amendment described in chapter 3 (Project Description) of this EIR would be delayed, partially implemented or not implemented due to an overall reduction in the rate of tax increment revenue increase in the Merged Project Area resulting from reduced project-facilitated commercial and economic development. For example, more existing underutilized commercial and industrial properties would remain underutilized if private investment alone does not rehabilitate these properties, and more existing blighted commercial and industrial properties would remain blighted if not improved by private investment. In summary, less tax increment revenue would be generated for allocation to transportation, building rehabilitation, public infrastructure, and hazardous materials clean-up activities, which, in turn, would be assumed to delay or reduce future overall private development activity in the Merged Project Area, in comparison to the proposed project.

### **19.3.2 Alternative 3 Evaluation: Comparative Impacts and Mitigating Effects**

(a) Land Use and Planning. The development activity anticipated in this EIR on underutilized commercial and industrial properties in the Merged Project Area would not occur or would be delayed under the Modified Redevelopment Assistance Emphasis alternative. Related tax increment funding for infrastructure improvements, land assembly, and other actions associated with the project would also be reduced or would not occur. As a result, existing land use compatibility problems in these areas would be less likely to be resolved through new development. Lands would continue to be underutilized and, in some cases, would remain vacant. Without the full extent of infrastructure financing; aesthetic improvements; commercial, industrial and housing improvements; and other assistance activities provided by the project, blighting conditions in the Merged Project Area would exist for a longer duration. Additional redevelopment assistance provided within the Merged Project Area under this alternative would be more limited, and redevelopment programs and actions described in this EIR would be funded at lower levels, with a corresponding substantial reduction in the overall alleviation of blighting conditions.

Additional private commercial and industrial development in the Merged Project Area would not occur at the rate anticipated with the project; rather, it would be reduced or curtailed, with associated reductions in the degree of related land use impacts, both beneficial and adverse.

(b) Population, Housing and Employment. Project-assisted housing development would occur at an increased rate under this alternative. Conversely, the more limited commercial and industrial assistance levels under this alternative would reduce the rate of employment growth.

(c) Transportation and Circulation. Commercial, industrial and other private development would be expected to occur at a slower rate in the Merged Project Area under the Modified Redevelopment Assistance Emphasis alternative. The traffic-related benefits of residential/commercial mixed use development activities facilitated by the redevelopment plan amendment as currently proposed (e.g., internalized trips, trip reductions, shorter commutes, increased transit use) would be reduced.

This alternative would result in more limited Redevelopment Agency funding for transportation and circulation improvements in the Merged Project Area. As a result, the related transportation and circulation benefits of such improvements would be reduced. The amount of funding for off-

site roadway improvements proposed under the project to improve access to the Merged Project Area would be reduced. Conversely, the project-related and cumulative traffic impacts described in chapter 6 of this EIR would also be reduced.

(d) Infrastructure and Public Services. Proposed project-assisted infrastructure improvements would be more limited in the Merged Project Area under the Modified Redevelopment Emphasis alternative. As a result, existing infrastructure and public service deficiencies would continue. This alternative would also result in increased demands for public services associated with residential use.

(e) Aesthetics. With the reduced potential for new commercial and industrial development under this alternative, the potential for new aesthetic and visual impacts would be reduced. However, the beneficial aesthetic and visual effects resulting from the proposed redevelopment plan amendment (e.g., additional blight reduction) would also be reduced compared to the proposed project.

(f) Biological Resources. Commercial and industrial development would be expected to occur at a slower rate under this alternative, and associated impacts on biological resources would be reduced or avoided.

(g) Cultural and Historic Resources. With a reduced rate of new commercial and industrial development under this alternative, potential impacts on cultural and historic resources would be reduced.

(h) Geology and Soils. Affordable housing development would be expected to occur at a greater rate under this scenario, and therefore more residents would be subject to identified seismic and soils related hazards in the Merged Project Area. However, the beneficial effects of project-facilitated building rehabilitation improvements would also be reduced.

(i) Drainage and Water Quality. This alternative would reduce the drainage system capacity and water quality impacts associated with project-related development. However, the beneficial effects of project-funded storm drainage improvements would also be reduced.

(j) Noise. Under this alternative, the demolition and construction period noise impacts directly associated with project-facilitated commercial and industrial development and infrastructure improvements would be reduced in the Merged Project Area. Also, significant traffic noise impacts and potential noise impacts due to land use changes facilitated by the proposed project would be reduced.

(k) Air Quality. Under the Modified Redevelopment Assistance Emphasis alternative, the additional short-term demolition and construction period air quality impacts associated with the proposed project actions (e.g., commercial and industrial building rehabilitation, new development, infrastructure improvements) would be reduced. The additional project-related significant long-term local and regional air quality impacts associated with traffic and stationary sources would also be reduced.

(l) Hazards and Hazardous Materials. Under this alternative, there would ultimately be reduced tax increment funding for hazardous materials clean-up. On the other hand, the amount of new construction that would be subject to hazardous materials exposure would also be reduced, at least in the near term. Remediation under ongoing non-redevelopment programs would continue.

(m) Climate Change. The additional project-related significant unavoidable greenhouse gas emission increases would be reduced under the Modified Redevelopment Assistance Emphasis alternative.

(n) Project Consistency with Local and Regional Plans. Similar to the proposed project, the Modified Redevelopment Assistance Emphasis alternative would remain consistent with existing land use plans and controls, including the Richmond General Plan and zoning ordinance. However, this alternative would reduce or curtail project-generated tax increment funding for actions to address existing adverse environmental conditions (e.g., blight, hazardous materials conditions).

(o) Attainment of Project Objectives. This alternative would only partially attain the project objectives described in section 3.2 (Project Objectives) of this EIR because the tax increment funding and bonded indebtedness available to achieve the overall range of project objectives would be reduced. Overall, some redevelopment plan amendment components and actions would be delayed or only partially implemented due to the shift in Agency funding away from those particular programs and towards affordable housing.

#### **19.4 ALTERNATIVE 4: INCREASE FINANCIAL CAPS BY LESSER AMOUNTS**

##### **19.4.1 Principal Characteristics**

Under this alternative, proposed redevelopment activities would be more curtailed due to less redevelopment plan amendment-generated revenues. For a hypothetical example, the Plan Amendment-authorized increases in the limit on the tax increment level amount would be reduced from the proposed \$1.06 billion cap to \$530 million, and the limit on the principal amount of bonded indebtedness would be reduced from the proposed \$1.61 billion cap to \$805 million (i.e., the increase in the combined cap would be reduced by half). In effect, about half as much revenue would be available to implement the range of redevelopment-facilitated activities proposed with the project.

##### **19.4.2 Alternative 4 Evaluation: Comparative Impacts and Mitigating Effects**

(a) Land Use and Planning. The degree of development anticipated in this EIR on underutilized property in the Merged Project Area would not occur or would be delayed under the Reduced Revenue Cap increase alternative. Many of the infrastructure improvements, land assembly, and other actions associated with the project would not occur or would be delayed. As a result, existing land use compatibility problems in these areas would be less likely to be resolved through new development. More land would continue to be underutilized and, in some cases, would remain vacant. Without the full extent of infrastructure financing, commercial and housing improvements, aesthetic improvements, and other assistance activities provided by the project, it is likely that blighting conditions in the Merged Project Area would exist for a longer duration. Additional assistance would still be provided to the existing Merged Project Area under this alternative, but improvements would be more limited because the new and expanded redevelopment programs and actions described in this EIR would be funded at lower levels. Full alleviation of blighting conditions in the Merged Project Area would not be achieved.

Additional private commercial, industrial, and residential development in the Merged Project Area would occur at a slower rate, with associated reductions in the degree of related land use impacts, both beneficial and adverse.

(b) Population, Housing and Employment. Population, housing, and employment would grow at a slower rate in the Merged Project Area under this alternative compared to the growth rate expected with the project, resulting in a reduced level of associated impacts. More limited assistance to the Merged Project Area under this alternative would reduce the rate of commercial, industrial and residential development, and there would be a reduced number of new jobs, housing units and residents.

Because the amount of tax increment revenue from this alternative would be smaller, the required 20 percent set-aside amount for affordable housing would also be smaller. The reduced level of project-associated housing assistance under this alternative would result in a smaller future supply of affordable housing in Richmond.

(c) Transportation and Circulation. Private development would be expected to occur at a slower rate in the Merged Project Area under the Reduced Revenue Cap alternative. Therefore, traffic and associated contributions to citywide traffic impacts resulting from this alternative would also be reduced. This alternative also assumes that there would be more limited Redevelopment Agency funding for transportation and circulation improvements in and outside the Merged Project Area. As a result, the related transportation and circulation benefits of such improvements would be reduced.

(d) Infrastructure and Public Services. Proposed project-assisted infrastructure improvements would be more limited in the Merged Project Area under the Reduced Revenue Cap alternative. As a result, existing deficiencies would continue. On the other hand, this alternative would result in less increased demand for public services, at least in the short-term, since new development in the Merged Project Area would not occur as quickly.

(e) Aesthetics. Due primarily to the reduced potential for new development under this alternative, the potential for new aesthetic and visual impacts would be reduced. However, the beneficial aesthetic and visual effects resulting from the proposed redevelopment plan amendment (e.g., additional blight reduction) would be reduced compared to the proposed project.

(f) Biological Resources. Development would be expected to occur at a slower rate under this alternative, and associated impacts on biological resources would be reduced or avoided. However, potential significant unavoidable impacts would remain.

(g) Cultural and Historic Resources. With a reduced rate of new development under this alternative, potential impacts on cultural and historic resources would also be reduced in the proposed Merged Project Area.

(h) Geology and Soils. Development would be expected to occur at a slower rate under this scenario, and therefore fewer people and less improved property would be subject to identified seismic and soils related hazards in the Merged Project Area. However, the beneficial effects of project-facilitated building rehabilitation improvements would also be reduced.

(i) Drainage and Water Quality. This alternative would reduce the drainage system capacity and water quality impacts associated with project-related development. However, the beneficial

effects of project-funded storm drainage improvements would be reduced due to less available funding.

(j) Noise. Under this alternative, the demolition and construction period noise impacts directly associated with anticipated redevelopment actions (e.g., roadway improvements, new building construction) would be reduced in the Merged Project Area. Also, significant unavoidable traffic noise impacts and potential noise impacts due to land use changes facilitated by the proposed project would be reduced.

(k) Air Quality. Under the Reduced Revenue Cap alternative, the additional short-term demolition and construction period air quality impacts associated with the proposed project actions (e.g., building rehabilitation, new development, infrastructure improvements) would be reduced. The additional project-related significant long-term local and regional air quality impacts associated with traffic and stationary sources would also be reduced.

(l) Hazards and Hazardous Materials. Under this alternative, there would be reduced funding for hazardous materials clean-up. On the other hand, the amount of new construction that would be subject to hazardous materials exposure would also be reduced, at least in the near term. Remediation under ongoing non-redevelopment programs would continue.

(m) Climate Change. The additional project-related significant unavoidable greenhouse gas emission increases would be reduced under the Reduced Revenue Cap alternative.

(n) Project Consistency with Local and Regional Plans. Similar to the proposed project, the Reduced Revenue Cap alternative would remain consistent with existing land use plans and controls, including the Richmond General Plan and zoning ordinance. However, this alternative would reduce additional project-generated tax increment funding for implementing the redevelopment-facilitated actions to address existing General Plan-identified adverse environmental conditions (e.g., blight, hazardous materials conditions).

(o) Attainment of Project Objectives. This alternative would partially attain the project objectives described in section 3.2 (Project Objectives) of this EIR because the tax increment funding for helping to achieve the project objectives would be reduced. Overall, some redevelopment plan amendment components and actions would be delayed or only partially implemented due to reduced funding for those particular programs and projects.

## **19.5 ALTERNATIVE 5: ALTERNATIVE MERGED PROJECT AREA LOCATION**

Section 15126.6 of the CEQA Guidelines indicates that the EIR evaluation of alternatives may include alternatives to the project's proposed location. CEQA Guidelines section 15126.6(f)(2)(A) states, "The key question and first step in analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR."

The potential for the Merged Project Area to be located on other sites, or within different boundaries, was examined. However, the boundaries of the proposed Merged Project Area were precisely established based on identified blighted conditions that are currently identified in Richmond, in combination with other urbanization parameters and variables set forth in California Community Redevelopment Law. No additional areas have been studied and

identified in Richmond that appear to meet redevelopment law criteria for blight and urbanization. The fundamental purpose of the currently-proposed Richmond Redevelopment Plan Amendment is to authorize activities and financing to enable the Richmond Community Redevelopment Agency to eliminate blighted conditions in the Merged Project Area. Agency establishment of an alternative site elsewhere in the community for activities pursuant to the redevelopment plan amendment would fail to attain any of the basic objectives of the proposed project (see section 3.2, Project Objectives, of this EIR) and would not be authorized by, or consistent with, California Community Redevelopment Law. Therefore, an alternative project location was considered infeasible.

## 19.6 CONCLUSIONS: ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The CEQA Guidelines (section 15126[e][2]) stipulate, "If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." Due to the various complex and interconnected environmental issues associated with the identified impacts and mitigations, it is not possible to simply apply a score or ranking to each alternative. The various environmental issues must be evaluated for both their adverse and beneficial effects in relation to the project objectives. Based on the evaluation in this EIR of alternatives other than the two No Project alternatives, **Alternative 4: Increase Tax Increment Revenue Cap by Lesser Amount** would result in the least adverse combination of environmental impacts and beneficial effects, and would therefore be the "environmentally superior alternative." This conclusion is based on the following:

- (1) all environmental impacts would be potentially reduced compared to the proposed project;
- (2) the alternative would retain more of the proposed project's environmental benefits than any of the other identified alternatives;
- (3) the alternative would retain more flexibility in allocating tax increment revenue toward mitigating environmental impacts than would the Modified Redevelopment Assistance Emphasis alternative (Alternative 3); and
- (4) the alternative would partially attain the proposed project objectives.

However, this "environmentally superior alternative" would be substantially less effective in attaining the local economic development, blight elimination, and affordable housing objectives described in section 3.2, Project Objectives, of this EIR.



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## 20. MITIGATION MONITORING

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This EIR chapter describes a recommended monitoring program for implementation of the mitigation measures identified in this EIR, and describes relationships between various anticipated monitoring needs and responsible monitoring agencies.

### 20.1 MONITORING REQUIREMENTS

CEQA section 21081.6 requires all public agencies to adopt reporting or monitoring programs when they approve projects subject to environmental impact reports or mitigated negative declarations.

A mitigation monitoring program would therefore be required for implementation after certification of the 2009 Richmond Redevelopment Plan Amendment Program EIR. Most of the environmental mitigation measures that have been recommended in this EIR would be subject to effective monitoring through the City of Richmond's normal development review and approval procedures, as well as during associated plan check and field inspection procedures. However, to satisfy CEQA section 21081.6 and CEQA Guidelines section 15097 (Mitigation Monitoring or Reporting), a documented record of implementation will be necessary.

### 20.2 MONITORING CHECKLIST FORMAT

While actual formulation of a specific mitigation monitoring program should not be completed unless and until this EIR is certified, the mitigation monitoring framework to be followed can be described on a preliminary basis. The attached example checklist format (Table 20.1) includes spaces for identifying each impact identified in the EIR, the related mitigation measure, the party responsible for monitoring the measure, and information on the type and required timing implications of the monitoring procedures. These checklist categories are discussed in more detail below. A completed checklist would be provided along with other required CEQA findings at the Final EIR phase.

#### 20.1.1 Identified Impact

This column would include each identified significant adverse impact as it is described in the EIR summary table (Table 2.1 in EIR chapter 2).

#### 20.1.2 Related Mitigation Measure (Performance Criteria)

This column would include each mitigation measure as it is described in the EIR summary table (Table 2.1 in EIR chapter 2). The description could be supplemented by any applicable performance criteria (i.e., the measure by which the success of the mitigation can be gauged) associated with each measure.

### **20.1.3 Monitoring**

This column would describe (1) the "implementation entity" responsible for carrying out each mitigation measure (e.g., a City department, another public agency); (2) the "type of monitoring action" required (e.g., condition of project approval, established plan check and/or inspection procedures or, if these are not sufficient, specialized monitoring procedures); (3) specific implementation timing requirements (e.g., at the completion of a particular development review or construction phase, prior to occupancy, or when some specific threshold is reached); and (4) the "monitoring and verification entity" responsible for performing the monitoring of each mitigation (e.g., a City department, another public agency, or some other entity).

### **20.1.4 Verification**

The verification column would provide a space for the signature and date of the "monitoring and verification" entity when a monitoring milestone is reached.

Table 20.1

## MITIGATION MONITORING CHECKLIST—RICHMOND REDEVELOPMENT PLAN AMENDMENT PROJECT

The environmental mitigation measures listed in column two below have been incorporated into the conditions of approval for the Richmond Redevelopment Plan Amendment Project in order to mitigate identified environmental impacts. A completed and signed chart will indicate that each mitigation requirement has been complied with, and that City and state monitoring requirements have been fulfilled with respect to Public Resources Code section 21081.6.

IDENTIFIED IMPACT	RELATED MITIGATION MEASURE (Performance Criteria)	MONITORING				VERIFICATION		
		Impl. Entity <sup>1</sup>	Type of Monitoring Action <sup>2</sup>	Timing Requirements <sup>3</sup>	Monitoring and Verification Entity <sup>4</sup>	Signature	Date	
LAND USE								
Impact 4-1.								
TRANSPORTATION AND CIRCULATION								
Impact 6-1.								
Impact 6-2.								
Impact 6-3.								
AESTHETICS								
Impact 8-1.								
Impact 8-2.								
Impact 8-3.								

<sup>1</sup> Appl. = Applicant; City = City of Richmond; RRA = Richmond Redevelopment Agency

<sup>2</sup> CPI = Construction-Period Inspection; OTC = One Time Confirmation Action; PC = Plan Check; POC = Post-Occupancy Inspection; SMS = Specialized Monitoring Study; SSR = Subsequent Standard Review

<sup>3</sup> DPC = During Project Construction; PBP = Prior to Issuance of Building Permit; PFM = Prior to Approval of Final Map; PGP = Prior to Issuance of Grading Permit; PPO = Prior to Project Occupancy; PTM = Prior to Tentative Map; STR = Specialized Timing Requirement

<sup>4</sup> RRA = Richmond Redevelopment Agency; Planning = Richmond Planning Department; RPW = Richmond Public Works Department; RFD = Richmond Fire Department; RPD = Richmond Police Department



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## **21. ORGANIZATIONS AND PERSONS CONTACTED**

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### **21.1 RICHMOND COMMUNITY REDEVELOPMENT AGENCY**

Steve Duran, Community and Economic Development Director  
Alan Wolken, Redevelopment Director  
Chadrick Smalley, Development Project Manager

### **21.2 CITY OF RICHMOND**

Roi Evron, GIS Administrator, Planning Department  
Jonelyn Whales, Senior Planner, Planning Department

### **21.3 CITY OF RICHMOND'S REDEVELOPMENT CONSULTANTS**

Marie Munson, Seifel Consulting, Inc.  
Lynn Hutchins, Attorney, Goldfarb and Lipman  
Helen Lee, Seifel Consulting, Inc.  
Jackie Tsou, Seifel Consulting, Inc.



## **22. APPENDICES**

- 22.1 Program EIR Authority
- 22.2 Notice of Preparation
- 22.3 CEQA Standards for EIR Adequacy
- 22.4 CEQA Definition of "Mitigation"
- 22.5 EIR Authors



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## APPENDIX 22.1: PROGRAM EIR AUTHORITY (CEQA GUIDELINES SECTION 15168)

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This EIR for the proposed 2009 Richmond Redevelopment Plan Amendment Program has been prepared as a program EIR under authority of section 15168 of the CEQA Guidelines. Section 15168 explains that a program EIR may be prepared on a series of actions that can be characterized as one large project and are related either (1) geographically; (2) as logical parts in the chain of contemplated actions; (3) in connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program; or (4) as individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

The proposed redevelopment plan amendment program and the series of actions required for its implementation are characterized by all four of these relationships. One, they are geographically related because the project, including all of its implementing actions, would occur in the same general area within the City of Richmond. Two, the various local, state, and federal governmental approvals, entitlements, and permits that may be required for development of the project are all logical parts in the chain of actions contemplated by the redevelopment plan amendment program. Three, development and redevelopment of the project would be undertaken in connection with the issuance of rules, regulations, plans, and other general criteria set forth as part of the amendment program. Four, activities under the 2009 Richmond Redevelopment Plan Amendment Program would be comprised of various individual activities carried out under the statutory authority of the City of Richmond that would generally have similar environmental effects that could be mitigated in similar ways.

Use of a program EIR can provide the following advantages. The program EIR can (1) provide an occasion for a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action, (2) ensure consideration of cumulative impacts that might be slighted in a case-by-case analysis, (3) avoid duplicative reconsideration of basic policy considerations, (4) allow the lead agency to consider broad policy alternatives and program-wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts, and (5) allow reduction in paperwork.

**Subsequent development activities must be examined in the light of the program EIR to determine whether an additional environmental document must be prepared.** If a later activity would have effects that were not examined in the program EIR, a new Initial Study would need to be prepared leading to either an EIR or a Negative Declaration. If the lead agency finds that, pursuant to CEQA Guidelines section 15162, no new effects could occur or no new mitigation measures would be required, the lead agency can approve the activity as being within the scope of the project covered by the program EIR, and no new environmental document would be required. Under CEQA Guidelines section 15168, a lead agency shall incorporate feasible mitigation measures and alternatives developed in the program EIR into subsequent actions in the program. Where the subsequent activities involve site-specific operations, the lead agency should use a written checklist or similar device to document the evaluation of the site and the activity to determine whether the environmental effects of the operation were covered in the program EIR.

A program EIR will be most helpful in dealing with subsequent activities if it deals with the effects of the program as specifically and comprehensively as possible. With a good and detailed analysis of the program, many subsequent activities can be found to be within the scope of the project described in the program EIR, and no further environmental document would be required.

A program EIR can be used to simplify the task of preparing environmental documents on later parts of the program. The program EIR can (1) provide the basis in an Initial Study for determining whether the later activity may have any significant effects; (2) be incorporated by reference to deal with regional influences, secondary effects, cumulative impacts, broad alternatives, and other factors that apply to the program as a whole; and (3) focus an EIR on a subsequent project to permit discussion solely of new effects that had not been considered before.

**APPENDIX 22.2**  
**NOTICE OF PREPARATION**





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**NOTICE OF EIR PREPARATION  
NOTICE OF EIR SCOPING MEETING**

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**To:** Responsible Agencies, Trustee Agencies, Affected Taxing Agencies, and Other Interested Parties

**Subject:** **Notice of Preparation of a Draft Environmental Impact Report<sup>1</sup>**

**From:** City of Richmond Planning Department

**Street Address:** 1401 Marina Way South

**City/State/Zip:** Richmond, California 94804

**Contact:** Jonelyn Whales, Senior Planner

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The City of Richmond (City) Planning Department will be the Lead Agency and will prepare an Environmental Impact Report (EIR) for the proposed redevelopment plan amendment project identified below. We are interested in comments from your agency as to the appropriate scope and content of the EIR's environmental information pertaining to your agency's statutory responsibilities in connection with the proposed project.

The proposed project is described, and the environmental topics that the City expects to address in the EIR are listed, below.

Due to the time limits mandated by state law, your response to this notice must be sent at the earliest possible date but **not later than 30 days** after receipt of this notice.

Please send your response to the City of Richmond Planning Department, Attention: Jonelyn Whales, Senior Planner, 1401 Marina Way South, Richmond, California 94804. Please provide a contact name for your agency with your comments.

**Project Title:** Richmond Redevelopment Plan Amendments

**Project Applicant:** Richmond Community Redevelopment Agency

**Project Location:** Areas in central, west and north Richmond, Contra Costa County, California (see page 7)

**Project Background:** California Community Redevelopment Law (CRL) (California Health and Safety Code Section 33000 et seq.) authorizes the local establishment of redevelopment agencies and redevelopment projects to facilitate economic revitalization and alleviate adverse conditions. CRL may only be applied in predominantly urbanized areas where adverse physical and economic conditions exist which "cannot be expected to be reversed or alleviated by private enterprise or governmental action, or both, without redevelopment." As authorized by CRL, tax increment financing from property tax revenue growth is the primary CRL funding mechanism, after state-mandated "pass-through" obligations to various other taxing entities, such as local school districts, are made.

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<sup>1</sup>Reference: California Code of Regulations, Title 14, and (CEQA Guidelines) Sections 15082(a), 15103 and 15375.

The City has adopted and the Richmond Community Redevelopment Agency (Redevelopment Agency) is currently implementing redevelopment plans for the nine project areas listed in Table 1, totaling approximately 5,348 acres. Six of the nine areas were amended to add territory between 1980 and 1999. Also, 1999 amendments to the redevelopment plans for these nine project areas provided for their fiscal merger in order to pool and distribute tax increment revenue as necessary to facilitate redevelopment activities. A 2005 amendment to the "10-B Nevin" redevelopment plan added four new subareas (collectively, the 2005 Added Area). The nine fiscally merged project areas, including their individual names, added areas, acreages, adoption dates, redevelopment activity time limits, tax increment receipt time limits, outstanding bonded indebtedness limits, and eminent domain time limits, are listed in Table 1. The location of the nine project areas is illustrated on page 7.

**Proposed Project:**

In order to continue implementation of Agency's goal to overcome adverse physical and economic conditions and facilitate revitalization, the Agency is proposing a new redevelopment plan amendment that would:

- (1) increase the limit ("cap") on the amount of tax increment revenue that may be claimed by the Agency from the portions of the fiscally merged project areas subject to the current limit of \$521.4 million to a revised limit that would be the subject of a future action of the Agency Board and City Council;
- (2) increase the limit on the principal amount of bonded indebtedness secured by tax increment revenue from the project areas fiscally merged in 1999 that may be outstanding at any one time from the current limit of \$250 million to a revised limit that would be the subject of a future action of the Agency Board and the City Council;
- (3) increase the limit on the principal amount of bonded indebtedness secured by tax increment revenue from the 2005 Added Area that may be outstanding at any one time from the current limit of \$150 million to a revised limit that would be the subject of a future action of the Agency Board and the City Council;
- (4) combine the limits on the principal amount of outstanding bonded indebtedness secured by tax increment from the project areas fiscally merged in 1999 and the 2005 Added area,
- (5) update the list of projects, programs and activities that may be undertaken by the Agency in the fiscally merged project areas;
- (6) extend the redevelopment plan time limit on the authorization of eminent domain for most of the fiscally merged project areas to up to twelve years from the new amendment adoption date (but not later than the applicable redevelopment activity time limit for each project area or subarea); and
- (7) update various redevelopment plan text provisions as necessary to comply with current CRL requirements.

The proposed plan amendment would not expand the project area boundaries or propose redevelopment projects and activities substantially beyond those authorized by the 1999 and 2005 Redevelopment Plan Amendments. Rather, the proposed redevelopment plan amendment project would facilitate continued implementation of a range of redevelopment activities and programs in the merged project areas, including:

- **Public improvements** including areawide transportation; traffic and street improvements; parking improvements; sewer and water system improvements; utility improvements; and park improvements. All of these public improvement projects are intended to improve circulation, facilitate pedestrian access, provide visual linkages, and support private sector development efforts.
- **Toxic remediation** programs designed to provide funding and other assistance to assist in areawide remediation, particularly in the industrial

areas of the fiscally merged project areas.

Table 1  
 RICHMOND COMMUNITY REDEVELOPMENT AGENCY--FISCALLY MERGED REDEVELOPMENT  
 PROJECT AREAS AND ASSOCIATED TIME AND FISCAL LIMITS

<u>Fiscally Merged Project Areas</u>	<u>Acres</u>	<u>Adopted</u>	<u>Existing Time Limit For Plan</u>	<u>Existing Time Limit for Tax Increment Receipt</u>	<u>Subject to TI Cap of \$521.4M*</u>	<u>Last Date to Incur Bonded Indebtedness**</u>	<u>Existing Time Limit for Eminent Domain</u>
<b>1A</b> Eastshore	123	8/26/1957	1/1/2012	1/1/2022	Y	No limit	7/13/2011
1999 Added Area	14	7/13/1999	7/13/2030	7/13/2045	N	7/13/2019	7/13/2011
<b>1C</b> Potrero	150	4/4/1960	1/1/2012	1/1/2022	Y	No limit	7/13/2011
<b>3A</b> Galvin	95	2/28/1955	1/1/2012	1/1/2022	Y	No limit	7/13/2011
<b>6A</b> Harbor	118	11/8/1954	1/1/2012	1/1/2022	Y	No limit	7/13/2011
Gate	616	6/26/1995	7/26/2026	7/26/2041	N	7/26/2015	7/13/2011
1995 Added Area	16	7/13/1999	7/13/2030	7/13/2045	N	7/13/2019	7/13/2011
1999 Added Area							
<b>8A</b> Hensley	90.5	5/29/1960	1/1/2012	1/1/2022	Y	No limit	7/13/2011
1980 Added Area	23.5	3/31/1980	3/31/2023	3/31/2033	Y	No limit	7/13/2011
1999 Added Area	887	7/13/1999	7/13/2030	7/13/2045	N	7/13/2019	7/13/2011
<b>10A</b> Downtown	107	5/23/1966	1/1/2012	1/1/2022	Y	No limit	7/13/2011
1999 Added Area	174	7/13/1999	7/13/2030	7/13/2045	N	7/13/2019	7/13/2011
<b>10B</b> Nevin	17	9/18/1972	9/18/2015	9/18/2025	Y	No limit	7/13/2011
1999 Added Area	10	7/13/1999	7/13/2030	7/13/2045	N	7/13/2019	7/13/2011
2005 Added Area <sup>1</sup>	1783	7/12/2005	7/12/2035	7/12/2050	N	7/12/2025	7/13/2017
<b>11A</b> Harbour	964	6/9/1975	6/9/2018	6/9/2028	Y	No limit	7/13/2011
1999 Added Area	141	7/13/1999	7/13/2030	7/13/2045	N	7/13/2019	7/13/2011
<b>12A</b> North Richmond	19	9/18/1972	9/18/2015	9/18/2025	Y	No limit	7/13/2011
<b>TOTAL</b>	<b>5,348</b>						

\*Combined tax increment limit of \$521,400,000 applies to the portions of the project areas subject to the tax increment cap.

\*\*The project areas fiscally merged in 1999 have a combined bonded indebtedness limit of \$250,000,000, and the 10B Nevin 2005 Added Area has a bonded indebtedness limit of \$150,000,000.

SOURCE: Richmond Redevelopment Agency, Seifel Consulting Inc., and Goldfarb & Lipman LLP.

- **Commercial and industrial attraction and retention** programs to develop incentives that address specific needs of existing businesses and enhance the City's ability to attract new businesses. Specific Agency activities under this program may include identification and promotion of catalyst development sites; land acquisition and relocation; demolition and site preparation; assistance with on- and off-side public improvements; loans and grants to new businesses; and other types of required assistance.
- **Commercial rehabilitation** programs designed to encourage existing property owners/businesses to substantially upgrade deteriorated storefronts, correct code violations, renovate the interiors of stores and encourage new, infill commercial development.
- **Business development** programs to reduce high business vacancies, and attract and assist in stabilizing existing small and medium sized businesses.
- **Beautification** programs that provide physical improvements along commercial corridors, such as landscaping, street lighting, street furniture, and areawide neighborhood street safety improvements. This program includes improvements in the Downtown to create an environment more attractive to shoppers, as well as improvements in areas to provide visual linkages between residential, commercial and industrial areas.
- **Cultural arts and recreational facilities improvement** programs, including areawide park and recreational facilities, public art, rehabilitation activities, Bay Trail improvements along the Point San Pablo Shoreline, and associated Bay Trail public access improvements.
- **Housing** improvement programs areawide that promote the development of a wide variety of affordable housing in the community in order to enhance the vitality of the area and provide much needed housing for the City. In particular, the Agency will continue to encourage mixed use development, new housing development, rehabilitation of existing rental and ownership units, infill development, mixed income development and an array of family and senior housing possibilities.

**EIR Scope:**

Under CEQA, the environmental consequences of the redevelopment and revitalization activity made possible by the proposed plan amendment must be evaluated. The City has determined that preparation of a program environmental impact report (EIR) is required pursuant to CEQA (Public Resources Code) section 21090(a) and CEQA Guidelines section 15180. The following 15 environmental topics (from the CEQA Guidelines Appendix G list of environmental factors) will be evaluated in the EIR:

- aesthetics,
- air quality,
- biological resources,
- cultural and historic resources,
- geology and soils,
- hazards and hazardous materials,
- hydrology and water quality,
- land use and planning,
- mineral resources,
- noise,
- population and housing,
- public services,
- recreation,
- transportation and circulation, and
- utilities and service system.

The City has also determined that the project will have a less-than-significant or no impact related to, and therefore the EIR will not address, the following topic:

- agricultural resources (no agricultural land is located within the merged project area).

**Notice of Scoping Meeting:**

Pursuant to CEQA Guidelines section 15082 (Notice of Preparation and Determination of Scope of EIR), the City of Richmond Planning Commission will conduct a scoping session for the purpose of soliciting views of the Contra Costa County, adjacent cities, responsible agencies, agencies with jurisdiction by law, trustee agencies, and interested parties requesting notice, as to the appropriate scope and content of the EIR.

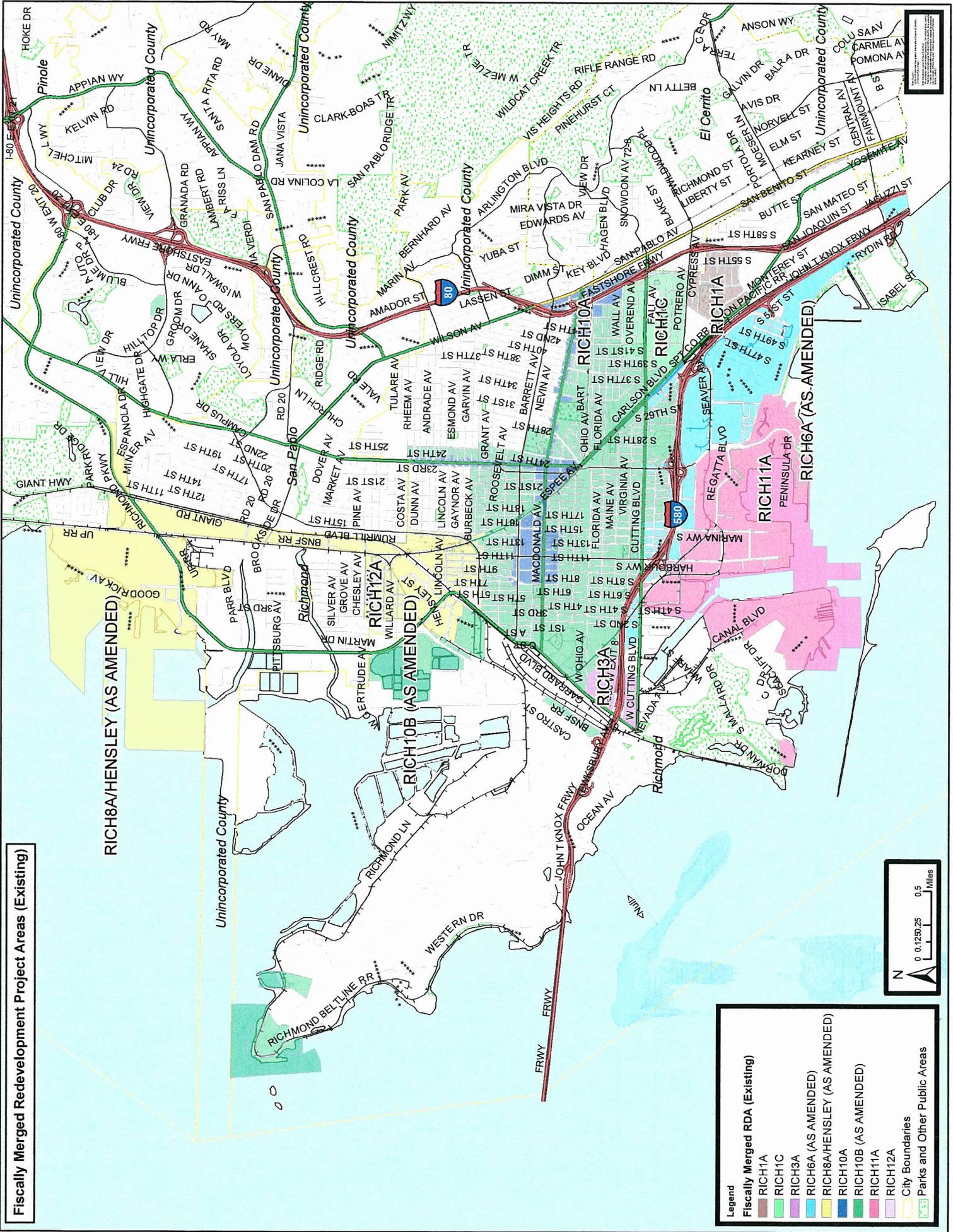
The scoping session will be conducted by the Planning Commission at its December 4, 2008 regular meeting, which begins at 7:00 PM, in the Richmond City Council Chambers, 1401 Marina Way South, Richmond.

Please contact Jonelyn Whales, Senior Planner, for further information.

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Jonelyn Whales, Senior Planner  
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\_\_\_\_\_  
Date

**Fiscally Merged Redevelopment Project Areas (Existing)**



**Legend**

- Fiscally Merged RDA (Existing)
  - RICH1A
  - RICH1C
  - RICH3A
  - RICH6A (AS AMENDED)
  - RICH10B (AS AMENDED)
  - RICH10A (AS AMENDED)
  - RICH11A (AS AMENDED)
  - RICH12A (AS AMENDED)
- City Boundaries
- Parks and Other Public Areas



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### **APPENDIX 22.3:**

#### **CEQA STANDARDS FOR EIR ADEQUACY**

**According to section 15151 of the CEQA Guidelines, the standards for Adequacy of an EIR are as follows:**

An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure.

## **APPENDIX 22.4:**

### **CEQA DEFINITION OF "MITIGATION"**

**According to section 15370 of the CEQA Guidelines, the term "mitigation" includes:**

- (a) Avoiding the impact altogether by not taking a certain action or parts of an action.
- (b) Minimizing impacts by limiting the degree of magnitude of the action and its implementation.
- (c) Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.
- (d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- (e) Compensating for the impacts by replacing or providing substitute resources or environments.

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## **APPENDIX 22.5 EIR AUTHORS**

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### **CITY OF RICHMOND:**

Chadrick Smalley, Development Project Manager I  
Jonelyn Whales, Senior Planner, Planning Department

### **CONSULTANTS TO THE CITY OF RICHMOND:**

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