

**DRAFT**  
**CEQA INITIAL STUDY/MITIGATED**  
**NEGATIVE DECLARATION**

**RICHMOND-OHLONE GREENWAY GAP CLOSURE PROJECT**  
**RICHMOND, CALIFORNIA**

Prepared for:

City of Richmond  
450 Civic Center Drive  
Richmond, California 94804

Prepared by:

LSA Associates, Inc.  
157 Park Place  
Point Richmond, California 94801  
(510) 236-6810

LSA Project No. FPT0901

**LSA**

May 2011

## MITIGATED NEGATIVE DECLARATION

**Project Name.** Richmond-Ohlone Greenway Gap Closure Project

**Project Location.** The project site is located along the boundary between the City of Richmond and the City of El Cerrito in Contra Costa County, California. The site is immediately east of Interstate 80 (I-80) along San Pablo Avenue between Macdonald Avenue and Wall/Conlon Avenue.

**Project Description.** The City of Richmond proposes to construct the Richmond-Greenway Gap Closure Project, a multi-use trail connection in Richmond, California. The Richmond-Ohlone Greenway Gap Closure Project represents the third phase of the Richmond Greenway Project, which would provide a continuous bicycle and pedestrian pathway in Richmond from Garrard Boulevard and the Richmond Parkway to San Pablo Avenue. The Richmond Greenway would connect the San Francisco Bay Trail at the west with the Ohlone Greenway in the City of El Cerrito at the east. The proposed project includes installation of the new multi-use trail, a new crosswalk and traffic signal on San Pablo Avenue, and a new bridge over realigned Baxter Creek as well as associated improvements (i.e., lighting) and landscaping.

**Findings.** It is hereby determined that, based on the information contained in the attached Initial Study, the project would not have a significant adverse effect on the environment.

Mitigation measures necessary to avoid the potentially significant effects on the environment are included in the attached Initial Study, which is hereby incorporated and fully made part of this Mitigated Negative Declaration. The City of Richmond has hereby agreed to implement each of the identified mitigation measures, which would be adopted as part of the Mitigation Monitoring and Reporting Program.

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Lina Velasco, Senior Planner

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Date

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## FIGURES

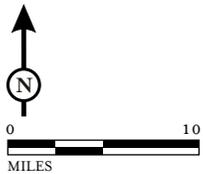
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1. **Project title:**  
Richmond-Ohlone Greenway Gap Closure Project
  
2. **Lead agency name and address:**  
City of Richmond Planning Division  
450 Civic Center Plaza  
P.O. Box 4046  
Richmond, CA 94804-1630
  
3. **Contact person and phone number:**  
Lina Velasco  
510-620-6841
  
4. **Project location:**  
The project site is located along the boundary between the City of Richmond and the City of El Cerrito in Contra Costa County, California. The site is immediately east of Interstate 80 (I-80) along San Pablo Avenue between Macdonald Avenue and Wall/Conlon Avenue (Figures 1 and 2). The project site is located primarily on Assessor's Parcel Numbers (APNs) 513-340-046 and 513-340-059.
  
5. **Project sponsor's name and address:**  
City of Richmond Engineering Department  
450 Civic Center Plaza  
P.O. Box 4046  
Richmond, CA 94804-1630
  
6. **General plan designation:**  
**City of Richmond General Plan (1994)**  
General Commercial  
  
**City of Richmond Draft General Plan Update (2011):**  
Medium Intensity Mixed Use (Commercial Emphasis), Medium Intensity Mixed Use (Gateway and/or Community Node)  
  
**City of El Cerrito General Plan Designation**  
Commercial/Mixed Use, Parks & Open Space
  
7. **Zoning:**  
**City of Richmond Municipal Code**  
C-2 (General Commercial)  
  
**City of El Cerrito Municipal Code**  
CC (Community Commercial)
  
8. **Description of project:**  
The City of Richmond (City) proposes to construct the Richmond-Ohlone Greenway Gap Closure Project (proposed project), the third phase of the Richmond Greenway Project, which



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FIGURE 1

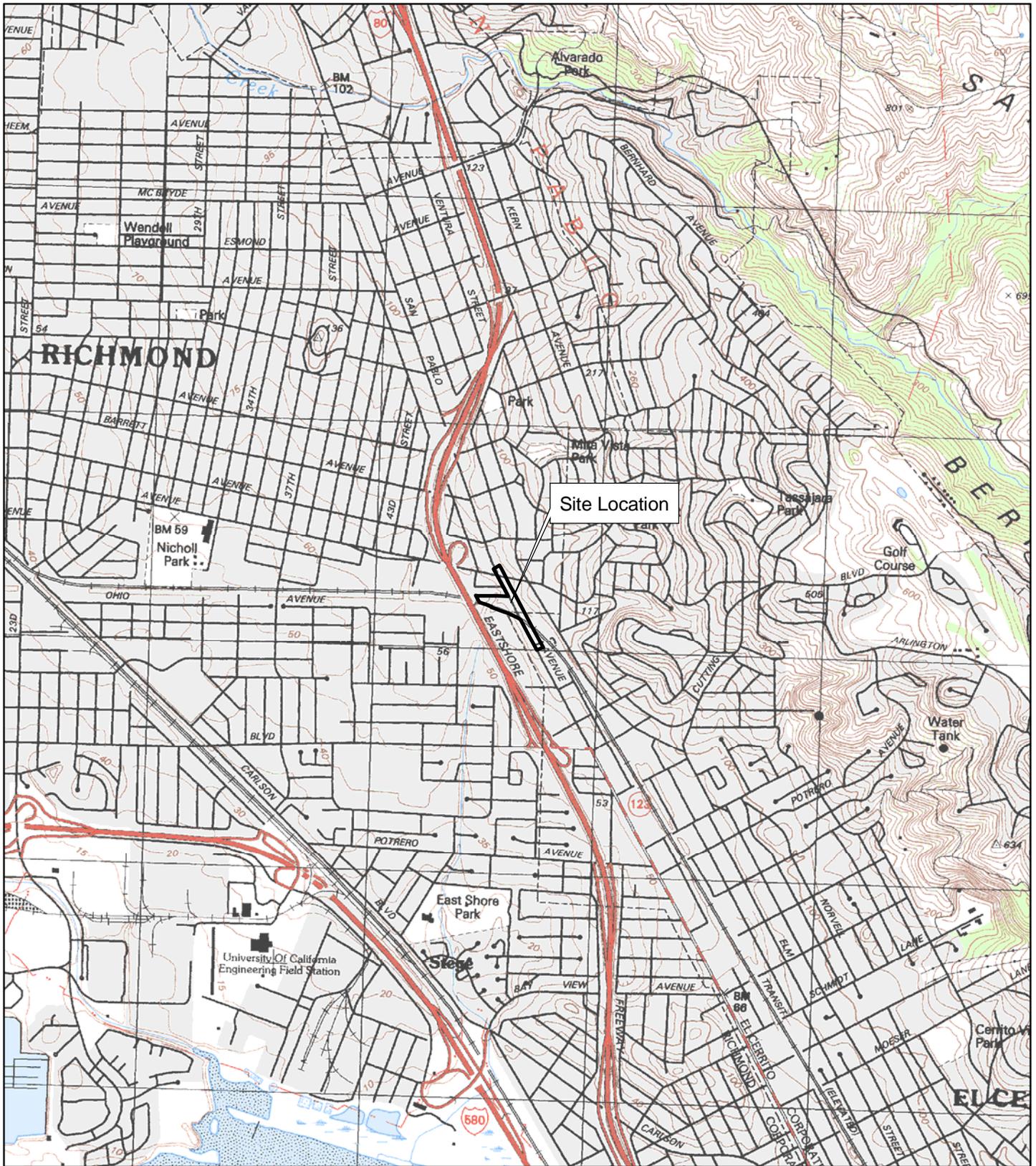


Richmond-Ohlone Gap Closure Project

Project Location

SOURCE: ©2006 DeLORME. STREET ATLAS USA©2006.

P:\FPT0901\g\Figure1\_ProjectLocation.cdr (01/20/2010)



LSA



0 1,000 2,000



FEET

Source: USGS 7.5' Richmond Calif., Quadrangle, 1980  
 F:\PPT0901\GIS\Maps\Delination\Figure2\_Project.Location.mxd (02/04/2010)

FIGURE 2

Richmond-Ohlone  
 Gap Closure Project

Site Location

would provide a continuous bicycle and pedestrian pathway in the City from Garrard Boulevard and Richmond Parkway to San Pablo Avenue. The Richmond Greenway extends along the abandoned Santa Fe railroad corridor connecting the San Francisco Bay Trail at the west with the Ohlone Greenway in the City of El Cerrito at the east. The first phase of the Richmond Greenway Project, known as the “western segment,” was completed in 2007. This segment connects with the Bay Trail at Garrard Avenue and continues to 23<sup>rd</sup> Street. The second phase, or “eastern segment,” which extends from 23<sup>rd</sup> Street to I-80, was constructed in 2009.

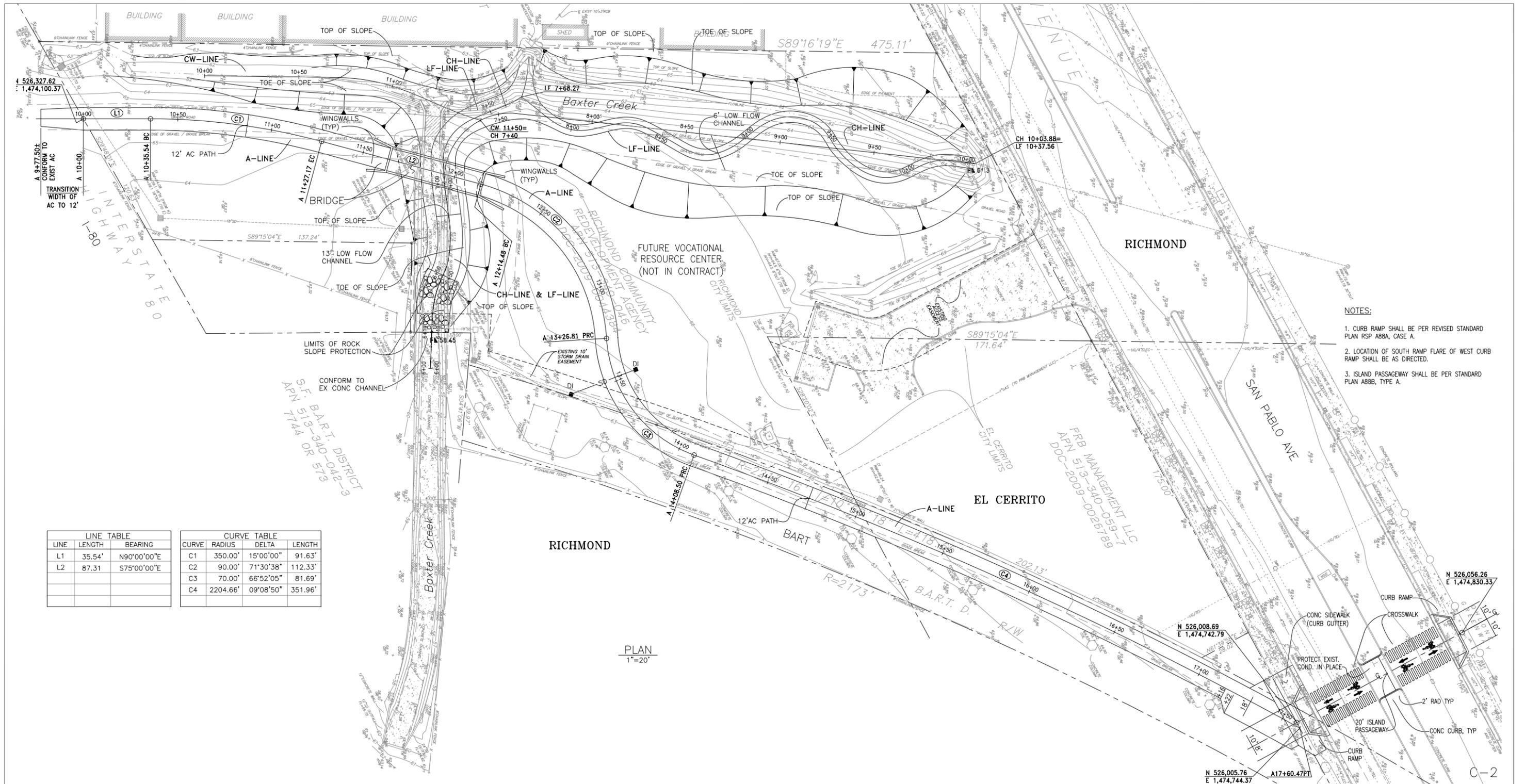
The proposed project is the third and final phase of the Richmond Greenway Project and would connect the previously-constructed segments with the Ohlone Greenway in El Cerrito by means of an at-grade signalized crossing on San Pablo Avenue. Specifically, the project would consist of a new multi-use pathway connection and the realignment and restoration of a portion of Baxter Creek (Figure 3). Specific elements of the project are described in more detail below.

**Multi-Use Pathway.** The proposed pedestrian and bicycle pathway would consist of two 6-foot-wide paved lanes and two 2-foot-wide unpaved shoulders. The paved lanes would be constructed with 0.35 feet of asphalt concrete over 0.50 feet of aggregate base.

At the western boundary of the project, the pathway would extend east from Interstate 80 (I-80) approximately 200 feet along the southern bank of realigned Baxter Creek, jog to the south and then continue east approximately 500 feet parallel to and beneath the elevated Bay Area Rapid Transit (BART) tracks to San Pablo Avenue. Approximately 200 feet east of the connection with the existing Richmond Greenway, the proposed pathway would cross the north-south alignment of Baxter Creek with a bridge crossing at this location. The proposed steel truss bridge would be 12 feet wide (clear between railings), 50 feet long, and have an approximately 65-foot soffit elevation (greater than the projected 100-year flood level). The bridge would have a concrete deck, safety fencing, and rails. Ground disturbance associated with bridge abutments would extend 4 to 6 feet below ground surface (bgs), and ground disturbance associated with bridge piers would extend 20 to 30 feet bgs.

At the terminus of the pathway on San Pablo Avenue, a new 18-foot wide crosswalk and bicycle crossing would be constructed to connect with the Ohlone Greenway on the east side of San Pablo Avenue in the City of El Cerrito. A traffic signal would be installed at this crossing with connections to the traffic signals at Conlon Avenue to the south and Macdonald Avenue to the north.

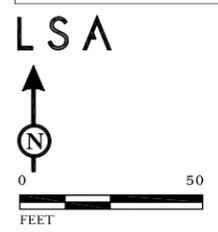
**Creek Restoration.** The proposed project would relocate the existing channels and connect to the existing trapezoidal concrete lined channel at the south edge of the site. The new channel would be an unlined trapezoidal channel with an unlined trapezoidal low flow channel cut into its invert. The low flow channel would be sized to contain the 2-year runoff event and would be curvilinear to provide a naturally stable and self-cleaning channel. The depth of excavation for the main channel would be approximately 3 to 6 feet bgs, with an additional 1.5 to 2 feet of depth for the low flow channel. The top of bank width of the main channel would range from 40 to 60 feet. Rock riprap would be placed where the restored creek segments connect to existing culverts and channels.



- NOTES:**
1. CURB RAMP SHALL BE PER REVISED STANDARD PLAN RSP AB8A, CASE A.
  2. LOCATION OF SOUTH RAMP FLARE OF WEST CURB RAMP SHALL BE AS DIRECTED.
  3. ISLAND PASSAGEWAY SHALL BE PER STANDARD PLAN AB8B, TYPE A.

LINE TABLE			CURVE TABLE			
LINE	LENGTH	BEARING	CURVE	RADIUS	DELTA	LENGTH
L1	35.54'	N90°00'00"E	C1	350.00'	15°00'00"	91.63'
L2	87.31	S75°00'00"E	C2	90.00'	71°30'38"	112.33'
			C3	70.00'	66°52'05"	81.69'
			C4	2204.66'	09°08'50"	351.96'

PLAN  
1"=20'



SOURCE: AN WEST, INC. (01/21/11)

P:\FPT0901\g\Figure3\_ProposedProject.dwg (02/10/2011)

FIGURE 3

Richmond-Ohlone Gap Closure Project

Proposed Project

The restored creek segments would be planted with native vegetation including trees, shrubs, and hydroseed mixes. Live cuttings of native willow species would be used in soil bioengineering treatments to stabilize creek banks and facilitate rapid riparian revegetation. Tree species would include coast live oak, Fremont poplar, white alder, arroyo willow, red willow, and big-leaf maple. Planted shrubs would include toyon, elderberry, flowering currant, hillside gooseberry, California wildrose, sticky monkey flower, coyote bush, red-twig dogwood, California sage, ninebark, Pacific blackberry, thimbleberry, and snowberry. A riparian hydroseed mix would be used for floodplain areas along Baxter Creek, and a grassland hydroseed mix would be used for upland areas.

The restored areas would be irrigated with a temporary system to improve plant survival. Irrigation piping and equipment would not be located in the floodplain. All restored areas outside of the floodplain would be irrigated with large rotors, with the exception of areas along San Pablo Avenue where sprayhead irrigation would be used. The irrigation system would connect with the City's water main at the northeast portion of the site adjacent to San Pablo Avenue. An irrigation controller would be installed at this location. At the point of connection, the irrigation system demand would be 40 gallons per minute (gpm) at 60 pounds per square inch (psi) minimum static pressure.

**Construction.** Construction of the proposed project would require the removal of several existing site features. In order to accommodate the new pathway and realigned east-west segment of Baxter Creek, the existing bridge over Baxter Creek within the former railroad right-of-way would be removed. Gravel/railroad ballast would also be removed from this area along the north portion of the site, and existing asphalt concrete pavement would be removed from the northeast corner of the site adjacent to San Pablo Avenue. In order to restore the north-south segment of Baxter Creek, the section of existing concrete channel within the site would be removed. Where the crosswalk is proposed, the existing concrete sidewalk, driveway, curb, and gutter would be removed and replaced by curb ramps. These curb ramps would also serve as access driveways for maintenance and emergency vehicles. A portion of the existing planted median, irrigation, and concrete curbs would be removed from the middle of San Pablo Avenue to accommodate the new crosswalk.

Existing storm drain facilities and utilities would be maintained. Construction of the proposed project would require excavation and de-watering activities in association with the realignment and restoration of Baxter Creek.

The construction area would be accessed via San Pablo Avenue. According to the construction specifications, construction activities would be limited between the hours of 8 a.m. and 5 p.m., Monday through Friday. Hours and days would be verified with both cities. Pedestrian access would be maintained along adjacent streets, and pedestrian and driveway access would be maintained for businesses and residents throughout construction activities. Along San Pablo Avenue, one lane would need to be closed in each direction for median construction. Lane closures would occur only during working hours and would be re-opened each day. Construction activities would last approximately six months and would take place between April 15 and October 15 after funding is secured.

**9. Surrounding land uses and setting:**

The project site includes San Pablo Avenue right-of-way between and including its intersections with Macdonald Avenue and Wall/Conlon Avenue and an area west of San Pablo Avenue. This area is bounded by elevated Bay Area Rapid Transit (BART) tracks, a fence and fill embankment for Interstate 80, and a fence line just north of a channelized reach of Baxter Creek. A graveled bicycle/walking pathway follows an abandoned railroad grade, running westward from San Pablo Avenue and under Interstate 80. The proposed trail would also pass through an adjacent property containing a Taco Bell franchise restaurant. Surrounding land uses are urban commercial and transportation corridors.

Site vegetation along San Pablo Avenue and at the Taco Bell restaurant is horticultural street and landscape plantings along with small areas of ruderal grass and forb vegetation. Vegetation in the area west of San Pablo Avenue is predominantly non-native annual grasses and forbs, including wild oats (*Avena* spp.), rip-gut (*Bromus diandrus*), Italian rye (*Lolium multiflorum*), smilo grass (*Piptatherum miliaceum*), filaree (*Erodium cicutarium*), common mallow (*Malva neglecta*), hairy cat's ear (*Hypochaeris radicata*), fennel (*Foeniculum vulgare*), wild radish (*Raphanus sativus*), wild mustard (*Brassica* sp.), Himalayan blackberry (*Rubus discolor*), and coyote brush (*Baccharis pilularis*). The excavated channel of Baxter Creek contains both native and non-native species, such as dallis grass (*Paspalum dilitatum*), rescue grass (*Bromus catharticus*), Himalayan blackberry, elm leaf blackberry (*Rubus ulmifolius* var. *inermis*), a species tentatively identified as water parsley (*Oenanthe sarmentosa*), and an unidentified hydrophytic grass.

The project site soils are mapped as Clear Lake clay in the northern half and as Tierra loam, 2 to 9 percent slopes, in the southern half (*USDA Soil Survey of Contra Costa County, California, 1977*). The soils observed and sampled west of San Pablo Avenue consist of gravelly, mixed, imported fill materials that do not match either of the mapped soil descriptions. The exception is soil on the bank of a ditch northwest of Baxter Creek that appears similar to Tierra loam.

The majority of the site is relatively flat, with an elevation of approximately 60 feet above mean sea level. The area west of San Pablo Avenue slopes slightly to the southwest. Constructed channel reaches of Baxter Creek cross through the project site. The east-west reach of the creek is an excavated, trapezoidal channel that appears to receive flow from a restored reach of the South Fork of Baxter Creek on the eastern side of San Pablo Avenue. An underground box culvert of the Middle Fork of Baxter Creek outlets into an excavated channel at the northern site boundary. Both channels join and then turn southward under the abandoned railroad grade in a concrete-lined trapezoidal channel that exits the southern site boundary.

**10. Other public agencies whose approval may be required (e.g., permits, financing approval, or participation agreement):**

- City of Richmond
- City of El Cerrito
- BART
- U.S Army Corps of Engineers

- Regional Water Quality Control Board
- California Department of Fish and Game

## ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

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

**Determination.** (To be completed by the Lead Agency.)

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

\_\_\_\_\_  
Lina Velasco, Senior Planner  
City of Richmond

\_\_\_\_\_  
Date

## EVALUATION OF ENVIRONMENTAL IMPACTS

This section identifies the environmental impacts of this project by answering questions from Appendix G of the CEQA Guidelines, the Environmental Checklist Form. The environmental issues evaluated in this chapter include:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biology
- Cultural Resources
- Geology
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities and Services Systems
- Mandatory Findings of Significance

All analyses take account the entire action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts. Impacts are categorized as follows:

**Potentially Significant Impact** is appropriate if there is substantial evidence that an effect is significant, or where the established threshold has been exceeded. If there are one or more “Potentially Significant Impact” entries when the determination is made, an Environmental Impact Report (EIR) may be required.

**Less Than Significant with Mitigation Incorporated** applies where the incorporation of mitigation measures would reduce an effect from Potentially Significant Impact to a Less Than Significant Impact. Mitigation measures are prescribed to reduce the effect to a less than significant level.

**Less Than Significant** applies when the project will affect or is affected by the environment, but based on sources cited in the report, the impact will not have an adverse affect. For the purpose of this report, beneficial impacts are also identified as less than significant. The benefit is identified in the discussion of impacts, which follows each checklist category.

A **No Impact** answer is adequately supported if referenced information sources show that the impact simply does not apply to projects like the one involved. A No Impact Answer is explained where it is based on project-specific factors as well as general standards.

## ENVIRONMENTAL CHECKLIST

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

### Affected Environment

The visual landscape in the project area is largely developed. The project site consists of a vacant lot bounded by I-80, BART tracks, roads, and commercial buildings. The project site includes the right-of-way for San Pablo Avenue between and including its intersections with Macdonald Avenue and Wall/Conlon Avenue. The project site also includes one driveway on San Pablo Avenue that provides access to the Taco Bell restaurant.

Baxter Creek flows through the northern portion of the project site and then turns south, flowing through a concrete-lined open channel.

Vegetation in the project area consists of native and non-native grasses and areas landscaped with ornamental shrubs. Site vegetation along San Pablo Avenue and at the Taco Bell restaurant is horticultural street and landscape plantings along with small areas of ruderal grass and forb vegetation. Vegetation in the area west of San Pablo Avenue is predominantly non-native annual grasses and forbs. The excavated channel of Baxter Creek contains both native and non-native species, such as dallis grass, rescue grass, Himalayan blackberry, elm leaf blackberry, a species tentatively identified as water parsley, and an unidentified hydrophytic grass.

### Discussion

a) *Have a substantial adverse effect on a scenic vista?*

**Less Than Significant Impact.** No scenic vistas are identified in the Richmond General Plan to or from the project site. Limited scenic vistas are possible due to the relatively flat topography and the surrounding urban development. To the north, no views are possible due to the existing buildings that front on Bissell Avenue. I-80, the BART tracks, and the Home Depot building limit views to the west and south. Views of the hills of Richmond and El Cerrito are further to the east.

Visible elements of the proposed project would include the new crosswalk and traffic signal on San Pablo Avenue, the new bridge over realigned Baxter Creek, and the new multi-use trail. The majority of the project elements would be at-grade and are not expected to impair surrounding views. Therefore, this impact is considered less-than-significant.

- b) *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway?*

**Less Than Significant Impact.** The project site is not located within the vicinity of a State Scenic Highway (Caltrans 2007). However, I-80 is designated as “Scenic and Landscaped Freeway” and San Pablo Avenue, south of Richmond Parkway is designated as an existing Scenic Route in the City of Richmond General Plan (1994). The proposed project would not damage scenic resources, including trees and is not located near any rock outcroppings or historic buildings. Therefore, this impact is considered less-than-significant.

- c) *Substantially degrade the existing visual character or quality of the site and its surroundings?*

**Less Than Significant Impact.** As described above, the proposed project is a multi-use trail with associated improvements. The project site is largely disturbed and surrounded by urban development. Implementation of the proposed project would result in the installation of a multi-use trail and associated improvements, including landscaping, decorative lighting and a bridge structure over Baxter Creek. Therefore, the proposed project would benefit the visual character of the project site by replacing an existing vacant lot with a multi-use trail and landscaping. Therefore, this impact is considered less-than-significant.

- d) *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

**Less Than Significant Impact.** Streetlights, vehicle head and taillights, and lighting associated with existing commercial businesses (e.g., Taco Bell, Home Depot) are the existing sources of light and glare in the project area. The proposed project would include construction of a new multi-use trail, realignment of Baxter Creek, and installation of a signalized crossing at San Pablo Avenue. Approximately 10 decorative pathway lights would be installed along the new multi-use trail. The decorative lights and the new traffic signal at San Pablo Avenue would provide new sources of light in the project area. The proposed lighting is intended to enhance safety for trail users.

Proposed lighting would be required to comply with the City of Richmond Design Review Guidelines (1999), which requires that lighting fixtures “relate to the scale and design of the development and ... have an intensity high enough to maintain security and low enough to

avoid being a nuisance.” If necessary, Planning Department Staff or the Design Review Board may require photometric mapping of the proposed site and lighting to determine potential impacts. Compliance with the City of Richmond Design Guidelines would ensure that proposed lighting would not adversely affect views or create substantial light or glare. Therefore, this impact is considered less-than-significant.

	<b>Potentially Significant</b>	<b>Potentially Significant Unless Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
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**II. AGRICULTURAL AND FOREST RESOURCES.** In

determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to a non-agricultural use?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Result in the loss of forest land or conversion of forest land to non-forest use?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forestland to non-forest use?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**Affected Environment**

The project site is mapped as “Urban and Built Up Land” by the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP). Urban and Built Up Land is occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10 acre parcel. Common examples include residential, industrial, commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment and

water control structures. The project site is not zoned for agricultural use, and is not under a Williamson Act contract.

No forest land or timberland is identified on or near the project site, and the project site is not zoned for forest or timber uses.

### **Discussion**

- a) *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to a non-agricultural use?*

**No Impact.** No Farmland is mapped on or near the project site. Therefore, the proposed project would not convert Farmland to a non-agricultural use.

- b) *Conflict with existing zoning for agricultural use, or a Williamson Act contract?*

**No Impact.** The project site is not zoned for agricultural use and is not under a Williamson Act contract. Therefore, the proposed project would not conflict with existing zoning for agricultural use, or a Williamson Act contract.

- c) *Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?*

**No Impact.** The project area contains no forest or timberland and is not zoned for forest land, timberland, or timberland production.

- d) *Result in the loss of forest land or conversion of forest land to non-forest use?*

**No Impact.** See response II(c) above.

- e) *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?*

**No Impact.** See responses II(a) and II(c) above.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>III. AIR QUALITY.</b> Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Affected Environment**

The project site is located within the San Francisco Bay Air Basin (SFBAB) and is within the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). Within the SFBAB, ambient air quality standards for ozone, carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), particulate matter (PM<sub>10</sub>, PM<sub>2.5</sub>), and lead (Pb) have been set by both the State of California (State) and the federal government. The State has also set standards for sulfate and visibility. As of April 2010, the SFBAB is under non-attainment status for ozone and particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) for State standards. The SFAB is classified as marginal non-attainment for the federal ozone 8-hour standard and non-attainment for the federal PM<sub>2.5</sub> standard.

**Discussion**

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

**Less Than Significant Impact.** An air quality plan describes air pollution control strategies to be implemented by a city, county, or region classified as a non-attainment area. The main purpose of an air quality plan is to bring the area into compliance with the requirements of Federal and State air quality standards. To bring the San Francisco Bay Area region into attainment, the Bay Area Air Quality Management District (BAAQMD) has developed the 2005 Ozone Strategy, and is in the process of developing the 2010 Clean Air Plan (CAP).

The air quality plans use the assumptions and projections of local planning agencies to determine control strategies for regional compliance status. Since the plans are based on local General Plans, projects that are deemed consistent with the applicable General Plan are usually found to be consistent with the air quality plans. The proposed project is consistent with the City of Richmond 1994 General Plan (see response IX(b)).

The BAAQMD's Bay Area CAP contains BAAQMD-wide control measures to reduce carbon monoxide and ozone precursor emissions. The proposed project would not increase regional vehicle miles traveled (VMT) and thus, would not increase regional carbon monoxide and ozone precursor emissions. Therefore, the proposed project is not expected to conflict with, or obstruct implementation of relevant air quality plans.

- b) *Violate any air quality standard or contribute substantially to an existing or projected air quality violation?*

**Potentially Significant Unless Mitigation Incorporated.** The long-term and short-term impacts of the proposed project to air quality are discussed below. Greenhouse gas emissions are discussed in Section VII of this document.

*Long-Term (Operational) Emissions.* Long-term air emissions impacts are associated with any change in permanent use of the project site by on-site stationary and off-site mobile sources that substantially increase vehicle trip emissions. No stationary sources are associated with the proposed project. Once completed, the proposed project would not generate vehicle or other emissions. Therefore, long-term operation of the proposed project would not contribute substantially to an existing or projected air quality violation.

*Short-Term (Construction) Emissions.* Air pollutant emissions associated with the proposed project would occur over the short-term in association with construction activities, such as grading and vehicle/equipment use.

Construction activities could generate exhaust emissions from utility engines, on-site heavy duty construction vehicles, equipment hauling materials to and from the site, and motor vehicles transporting construction crews. Exhaust emissions during construction would vary daily as construction activities levels change. The use of construction equipment would result in localized exhaust emissions. Due to the limited extent of development proposed, the projected short-term emissions of criteria pollutants as a result of project construction are expected to be below emissions thresholds established by the BAAQMD.

Fugitive dust emissions are associated with excavation, land clearing, exposure, and cut-and-fill operations. Dust generated daily during construction would vary substantially, depending on the level of activity, the specific operations, and weather conditions. On a limited basis, sensitive receptors in the vicinity and on-site workers may be exposed to blowing dust, depending on the prevailing wind. BAAQMD specifies mitigation measures for dust control related to construction projects. These mitigation measures are intended to reduce PM<sub>10</sub> emissions to less-than-significant levels during the construction period. Implementation of Mitigation Measure AIR-1, described below would reduce this short-term construction period air quality impact to a less-than-significant level.

**Mitigation Measure AIR-1:** Consistent with guidance from the Bay Area Air Quality Management District, the following controls shall be implemented at the construction site to control construction emissions:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping shall be prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points regarding maximum idling time.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- The contractor shall post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Bay Area Air Quality Management District's phone number shall also be visible to ensure compliance with applicable regulations.

- 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)?*

**Potentially Significant Unless Mitigation Incorporated.** As described above in Section III(b), the proposed project would result in temporary increases in air pollutants; these increases would not result in a cumulatively considerable net increase of any air pollutants. Implementation of Mitigation Measure AIR-1, described above, would reduce impacts to a less-than-significant level.

- d) *Expose sensitive receptors to substantial pollutant concentrations?*

**Potentially Significant Unless Mitigation Incorporated.** Construction of the proposed project may expose surrounding land uses to airborne particulates and fugitive dust, as well as a small quantity of pollutants associated with the use of construction equipment (e.g., diesel-fueled vehicles and equipment). Implementation of Mitigation Measure AIR-1, described above,

would reduce construction-related emissions to a less-than-significant level. As discussed in Section III(b), the proposed project would not result in any long-term air quality impacts. Therefore, nearby sensitive receptors would not be exposed to substantial pollutant concentrations.

e) *Create objectionable odors affecting a substantial number of people?*

**Less Than Significant Impact.** Some objectionable odors may be generated from the operation of diesel-powered construction equipment and/or asphalt paving during the project construction period. However, these odors would be short term in nature and would not result in permanent impacts to surrounding land uses, including sensitive receptors in the vicinity of the project site. Therefore, no significant impacts related to objectionable odors would result from the proposed project.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>IV. BIOLOGICAL RESOURCES.</b>				
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) Through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional, or State habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Affected Environment:**

This section is based on observations made during a reconnaissance-level biological survey of the project site by LSA wildlife biologist Matt Ricketts on June 28, 2010 and a field delineation of jurisdictional waters on the site by LSA soil scientist Chip Bouril on January 13, 2010. The purpose of these surveys was to assess current habitat conditions and evaluate the site's potential to support special-status plant and/or animal species or sensitive habitats. Prior to conducting field work, LSA searched the California Natural Diversity Database (CNDDDB) (CDFG 2010) for records of special-status plant and animal species within 5 miles of the site using Geographic Information Systems (GIS) software (i.e., Arc GIS 9.3.1).

**Vegetation.** Vegetation along San Pablo Avenue and at the Taco Bell restaurant consists of horticultural street and landscape plantings along with small areas of ruderal grass and forb vegetation. Vegetation in the area west of San Pablo Avenue consists of non-native annual grasses and ruderal forbs such as wild oats (*Avena fatua*), ripgut brome (*Bromus diandrus*), Italian wildrye (*Lolium multiflorum*), smilo grass (*Piptatherum miliaceum*), filaree (*Erodium cicutarium*), common mallow (*Malva neglecta*), hairy cat's ear (*Hypochaeris radicata*), sweet fennel (*Foeniculum vulgare*), wild radish (*Raphanus sativus*), wild mustard (*Brassica* sp.), Himalayan blackberry (*Rubus discolor*), and coyote brush (*Baccharis pilularis*). The excavated channel of Baxter Creek contains both native and non-native species such as dallis grass (*Paspalum dilitatum*), rescue grass (*Bromus catharticus*), Himalayan blackberry, elm leaf blackberry (*Rubus ulmifolius* var. *inermis*), a species tentatively identified as water parsley (*Oenanthe sarmentosa*), and an unidentified hydrophytic grass.

**Wildlife.** Due to its highly disturbed condition, small size, and location within a dense urban landscape, the site is of limited habitat value for native wildlife. Species expected to use the site are generalists that have successfully adapted to human development. Wildlife species detected during the June 28 reconnaissance survey include California gull (*Larus californicus*) (flyover), rock pigeon (*Columba livia*), American goldfinch (*Carduelis tristis*), and house sparrow (*Passer domesticus*). Rock pigeon and house sparrow are non-native species that thrive in urban environments. Other common bird species that may use the site include mourning dove (*Zenaida macroura*), black phoebe (*Sayornis nigricans*), California towhee (*Pipilo crissalis*), song sparrow (*Melospiza melodia*), and house finch (*Carpodacus mexicanus*). No mammals were observed but common urban-adapted species such as Norway rat (*Rattus norvegicus*), northern raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), and black-tailed deer (*Odocoileus hemionus*) likely forage on and move through the site. Similarly, no reptiles or amphibians were observed but common species such as arboreal salamander (*Aneides lugubris*), Sierran treefrog (*Pseudacris sierra*), and common garter snake (*Thamnophis sirtalis*) may occur in the dense vegetation along Baxter Creek. Although none were observed, western fence lizards (*Sceloporus occidentalis*) often occur in disturbed urban habitats and the scattered concrete rubble in the southern portion of the site provides suitable basking sites for this species.

**Special-status Species.** Based on a review of the CNDDDB and observations during LSA's reconnaissance-level surveys, LSA identified 34 special-status species (16 plants and 18 animals) as potentially occurring in the site vicinity (Table IV-1). No special-status plant species are expected to occur on or adjacent to the site due to its highly disturbed condition and subsequent lack of suitable native habitats such as grasslands, coastal salt marsh, vernal pools, and serpentine rock outcrops. No special-status animal species are expected to occur due to the lack of suitable aquatic, salt marsh, and chaparral habitat that most of these species require. The disturbed conditions in and adjacent to Baxter Creek and the lack of natural flows during the dry season (LSA 2010) preclude the occurrence of California red-legged frog (*Rana draytonii*) and western pond turtle (*Actinemys marmorata*). Both species are known to occur within 5 miles of the site in undisturbed open space lands to the east (i.e., San Pablo Reservoir and environs), but neither species has been recorded in Baxter Creek nor any other urban streams in Richmond (CDFG 2010).

**Table IV-1: Special-status Species Potentially Occurring in the Vicinity of the Richmond-Ohlone Greenway Gap Closure Project Site, Richmond, California.**

Species	Status	Habitat	Potential for Occurrence
<b>Plants</b>			
<i>Amsinckia lunaris</i> Bent-flowered fiddleneck	1B	Coastal bluff scrub, cismontane woodland, valley and foothill grassland. 3–500 meters. Blooms March to June.	Not expected to occur due to lack of coastal scrub, woodland, and grassland.
<i>Arctostaphylos pallida</i> Pallid manzanita	FT, SE, 1B	Shale or thin chert substrates in deciduous and coniferous forests and woodlands, chaparral, or coastal scrub. Known from fewer than 10 occurrences in the Diablo Range. 185–465 meters. Blooms December to March.	Not expected to occur. Project site is outside known distribution of species and suitable habitat not present.
<i>Astragalus tener</i> var. <i>tener</i> Alkali milk-vetch	1B	Alkaline soils in grasslands usually associated with vernal pools. Blooms March–June.	Not expected to occur due to lack of alkaline soils and vernal pools.
<i>Atriplex joaquiniana</i> San Joaquin sparscale	1B	Grasslands and seasonal wetlands with alkaline soils. Blooms April–November.	Not expected to occur due to lack of alkaline soils.
<i>California macrophylla</i> Round-leaved filaree	1B	Clay soils in woodland and grassland. 15–1200 meters. Blooms March to May.	Not expected to occur due to lack of clay soils.
<i>Calystegia purpurata</i> ssp. <i>saxicola</i> Coastal bluff morning-glory	1B	Coastal dunes, coastal scrub, and coniferous forest. 10–105 meters. Blooms May to September.	Not expected to occur due to lack of coastal dunes, coastal scrub, and coniferous forest.
<i>Cirsium andrewsii</i> Franciscan thistle	1B	Coastal scrub, broadleaved upland forest. Sometimes in serpentine seeps. 0–135 meters. Blooms March–July.	Not expected to occur due to lack of coastal scrub and forest.
<i>Cordylanthus maritimus</i> ssp. <i>palustris</i> Point Reyes bird’s-beak	1B	Coastal salt marsh. 0–10 meters. Blooms June to October.	Not expected to occur due to lack of salt marsh.
<i>Cordylanthus mollis</i> ssp. <i>mollis</i> Soft bird’s-beak	1B	Coastal salt marsh. Blooms July–November.	Not expected to occur due to lack of salt marsh.
<i>Dirca occidentalis</i> Western leatherwood	1B	A variety of forest and woodland types, mostly on brushy slopes in mixed evergreen forest and foothill woodland communities. 30–395 meters. Blooms January to March.	Not expected to occur due to lack of woodland or forest habitats.

Species	Status	Habitat	Potential for Occurrence
<i>Fritillaria liliacea</i> Fragrant fritillary	1B	Coastal scrub, valley and foothill grassland, coastal prairie. Often on serpentine or clay in grassland. Blooms February–April.	Not expected to occur due to lack of serpentine or clay soils.
<i>Helianthella castanea</i> Diablo helianthella	1B	Forest, woodland, chaparral, scrub, and grassland, often at interface between oak woodland and chaparral. Blooms March–April.	Not expected to occur due to lack of forest, woodland, chaparral, and grassland habitats.
<i>Hoita strobilina</i> Loma Prieta hoita	1B	Serpentine soils in chaparral and woodland. 30–860 meters. Blooms March to July (uncommonly into October).	Not expected to occur due to lack of serpentine soils.
<i>Holocarpha macradenia</i> Santa Cruz tarplant	FT, SE, 1B	Clay or sandy soils in coastal prairie, coastal scrub, and grassland. 10–220 meters. Blooms June to October.	Not expected to occur. Last natural Bay Area population extirpated by development in 1993 (CNPS 2010).
<i>Monardella villosa</i> ssp. <i>globosa</i> Robust monardella	1B	Chaparral, broadleaved upland forest, cismontane woodland, coastal scrub, and grassland. 100–915 meters. Blooms June to July.	Not expected to occur due to lack of chaparral, forest, woodland, scrub, and grassland habitats. Project site too low in elevation.
<i>Suaeda californica</i> California seablite	FE, 1B	Margins of coastal salt marsh. 0–15 meters. Blooms July to October.	Not expected to occur due to lack of salt marsh.
<b>Amphibians and Reptiles</b>			
California red-legged frog <i>Rana draytonii</i>	FT, CSC	Ponds, streams, drainages and associated uplands; requires areas of deep, still, and/or slow-moving water for breeding	Not expected to occur due to disturbed conditions and lack of year-round water in Baxter Creek. Site also lacks aquatic and upland habitat connectivity to known occurrences near San Pablo Reservoir.
Western pond turtle <i>Actinemys marmorata</i>	CSC	Ponds, streams, drainages and associated uplands.	Not expected to occur due to disturbed conditions and lack of year-round water in Baxter Creek.
Alameda whipsnake <i>Masticophis lateralis euryxanthus</i>	FT, ST	Chaparral and sage scrub with rock outcrops and an abundance of prey species such as western fence lizard ( <i>Sceloporus occidentalis</i> ).	Not expected to occur due to lack of chaparral.

Species	Status	Habitat	Potential for Occurrence
<b>Birds</b>			
White-tailed kite <i>Elanus leucurus</i>	CFP	Open grasslands, meadows, or marshes. Require dense-topped trees or shrubs for nesting and perching.	Not expected to occur due to lack of suitable trees or shrubs for nesting and extensive open habitat for foraging.
Northern harrier <i>Circus cyaneus</i>	CSC	Nests in wet meadows and marshes, forages over open grasslands and agricultural fields.	Not expected to occur due to lack of open marsh or grassland.
Bald eagle <i>Haliaeetus leucocephalus</i>	SE, CFP	Lakes, reservoirs, rivers, lagoons, and seashores; usually nest in large trees or snags near water.	Not expected to occur due to site's location within dense urban area.
California black rail <i>Laterallus jamaicensis coturniculus</i>	ST, CFP	Salt marshes bordering larger bays, also found in brackish and freshwater marshes.	Not expected to occur due to lack of salt marsh.
California clapper rail <i>Rallus longirostris obsoletus</i>	FE, SE, CFP	Tidal salt marshes with sloughs and substantial cordgrass ( <i>Spartina</i> sp.) cover.	Not expected to occur due to lack of salt marsh.
Burrowing owl <i>Athene cunicularia</i>	CSC	Open habitats (e.g., grasslands, agricultural areas) with mammal burrows or other features (e.g., culverts, pipes, debris piles) suitable for nesting and roosting.	Not expected to occur due to lack of suitable burrows.
Short-eared owl <i>Asio flammeus</i>	CSC	Open habitats (e.g., marshes, irrigated alfalfa or grain fields, ungrazed grasslands or pastures) that support concentrations of microtine rodents and herbaceous cover sufficient to conceal ground nests from predators.	Not expected to occur due to site's location within dense urban area.
Salt marsh common yellowthroat <i>Geothlypis trichas sinuosa</i>	CSC	Salt, brackish, and freshwater marshes; and riparian woodlands. Nests on or near ground in low vegetation.	Not expected to occur due to lack of salt, freshwater, or brackish marsh.
San Pablo song sparrow <i>Melospiza melodia samuelis</i>	CSC	Tidal and muted salt marshes on the fringes of San Pablo Bay, Tomales Bay, and Richardson Bay. Nests primarily in pickleweed and gumplant.	Not expected to occur due to lack of salt marsh.

Species	Status	Habitat	Potential for Occurrence
Alameda song sparrow <i>M. melodia pusillula</i>	CSC	Tidal salt marshes on the fringes of south and central San Francisco Bay. Nests primarily in pickleweed and marsh gumplant.	Not expected to occur due to lack of salt marsh.
Yellow-headed blackbird <i>Xanthocephalus xanthocephalus</i>	CSC	Freshwater emergent marsh with dense vegetation and deep water.	Not expected to occur due to lack of freshwater marsh.
<b>Mammals</b>			
Salt-marsh wandering shrew <i>Sorex vagrans halicoetes</i>	CSC	Tidal salt marshes with abundant driftwood and other debris (for shelter and foraging).	Not expected to occur due to lack of salt marsh.
Pallid bat <i>Antrozous pallidus</i>	CSC	Roosts in caves, tunnels, buildings, under bridges, and in tree hollows; forages over variety of habitats.	Not expected to occur. No evidence of bat roosting observed under existing bridge. Site's small size and location within dense urban environment limits suitability for foraging.
Salt-marsh harvest mouse <i>Reithrodontomys raviventris</i>	FE, SE, CFP	Tidal salt marshes of San Francisco Bay and its tributaries. Requires tall, dense pickleweed ( <i>Salicornia</i> sp.) for cover.	Not expected to occur due to lack of salt marsh.
San Pablo vole <i>Microtus californicus sanpabloensis</i>	CSC	Salt marshes of San Pablo Creek, on the south side of San Pablo Bay. Requires soft soils for burrows.	Not expected to occur due to lack of salt marsh.

Status Codes:

FE = federally endangered

FT = federally threatened

SE = State endangered

ST = State threatened

1B = California Rare Plant Rank 1B: plants rare, threatened, or endangered in California and elsewhere

2 = C 2: plants rare, threatened, or endangered in California but more common elsewhere

CSC = California Species of Special Concern

CFP = California Fully Protected Species

**Jurisdictional Waters.** LSA conducted a formal delineation of waters of the United States subject to U.S. Army Corps of Engineers (Army Corps) jurisdiction under Section 404 of the Clean Water Act on January 13, 2010. The findings and conclusions of the wetland delineation were field verified by the Army Corps on 29 April 2010. Waters of the United States on the project site consist of Baxter Creek, with an area of 3,600 square feet (0.083 acres) and a length of 570 feet, and Seasonal Wetland A, with an area of 175 sq. ft. (0.004 acre). The total jurisdictional area on the project site is 0.87 acres.

**Discussion**

- a) *Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in*

*local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

**No Impact.** No special-status species are expected to occur on or adjacent to the site (see above).

- b) *Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

**No Impact.** No riparian vegetation or other sensitive natural communities are present on the site. The vegetation along Baxter Creek consists primarily of dense non-native Himalayan blackberry and lacks typical native riparian trees and shrubs such as willows (*Salix* sp.), Fremont cottonwood (*Populus fremontii*), alders (*Alnus* sp.), and boxelder (*Acer negundo*). The CNDDDB identifies three sensitive natural communities as present in the site vicinity: northern coastal salt marsh, northern maritime chaparral, and valley needlegrass grassland (CDFG 2010). None of these communities are present on or near the project site.

- c) *Would the project 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?*

**Potentially Significant Unless Mitigation Incorporated.** The project will result in the removal of approximately 120 feet of existing concrete channel through which Baxter Creek currently flows, constituting a direct impact to other waters of the United States. Implementation of the following mitigation measure, which has already been incorporated into the project, would reduce this impact to a less-than-significant level.

Mitigation Measure BIO-1a: Impacts to the existing Baxter Creek channel shall be mitigated through the creek restoration aspect of the project design. The impacted section of the creek shall be replaced by a newly constructed, meandering channel planted with native riparian vegetation. As such, the project will substantially improve the habitat quality of Baxter Creek from its current, disturbed state.

Mitigation Measure BIO-1b: Prior to initiating construction, the City shall obtain all necessary permits for conducting work in and adjacent to jurisdictional waters from the Army Corps (Section 404 permit), San Francisco Bay Regional Water Quality Control Board (Section 401 water quality certification), and California Department of Fish and Game (CDFG) (Section 1602 Streambed Alteration Agreement).

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

**Potentially Significant Unless Mitigation Incorporated.** The proposed project will not interfere with local wildlife movement or corridors. Wildlife species expected to occur in the

area are generalists that are adept at moving through urban landscapes. The project will not affect the ability of these species to move through the site vicinity.

Project construction would result in the removal of vegetation along Baxter Creek that could be used by nesting birds. If conducted during the nesting season (February 1–August 31), project activities could directly impact nesting birds by removing shrubs that support active nests. Construction-related disturbance (e.g., noise, vehicle traffic, personnel working adjacent to suitable nesting habitat) could also indirectly impact nesting birds by causing adults to abandon nests in nearby trees or other vegetation, resulting in nest failure and reduced reproductive potential. The nests of native birds are protected under the federal Migratory Bird Treaty Act and Section 3503 of the California Fish and Game Code. Implementation of the following mitigation measure would reduce this impact to a less-than-significant level.

Mitigation Measure BIO-2: If feasible, vegetation removal activities shall occur during the non-breeding season (September 1–January 31). If such activities are scheduled during the breeding season (February 1–August 31), a qualified biologist shall conduct a preconstruction nest survey of all trees or other suitable nesting habitat in and within 100 feet of the limits of work. The survey shall be conducted no more than 15 days prior to the start of work. If the survey indicates the potential presence of nesting birds, the biologist shall determine an appropriately sized buffer around the nest in which no work will be allowed until the young have successfully fledged. The size of the nest buffer will be determined by the biologist in consultation with CDFG, and will be based on the nesting species and its sensitivity to disturbance. In general, buffer sizes of up to 250 feet for raptors and 50 feet for other birds should suffice to prevent disturbance to birds nesting in the urban environment, but these buffers may be increased or decreased, as appropriate, depending on the bird species and the level of disturbance anticipated near the nest.

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

**No Impact.** The project will not result in the removal of any trees protected under the City's municipal code, nor will it conflict with any local policies or ordinances protecting biological resources.

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

**No Impact.** The proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

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

**Affected Environment:**

LSA conducted a cultural and paleontological resources investigation including a records search, literature review, fossil locality search, field survey, and prepared a memorandum summarizing the findings of the investigation (LSA Associates, Inc. 2010b). LSA’s background research, consultation, and field survey did not identify any surface cultural resources within or adjacent to the project area. Careful review of the ground surface, earthen cuts resulting from the channelization of Baxter Creek, and animal burrows, and backdirt gave no indication of buried archaeological materials.

Despite extensive previous disturbance throughout the project area resulting from the channeling of Baxter Creek, construction of the I-80 freeway, the elevated BART tracks, the railroad, streets, and nearby buildings the soils indicate sensitivity for surface and buried archaeological resources. The presence of the well-developed Tierra Loam in the southern portion of the project area, as well as the proximity of two surficial prehistoric archaeological sites, indicates sensitivity for surface archaeological deposits. The poorly-developed Clear Lake Clay in the northern portion of the project area is sensitive for buried archaeological deposits.

No paleontological resources were identified in the project area. However, some of the geological formations underlying the project area, Late Pleistocene alluvium and Miocene Contra Costa Group, are sensitive for paleontological resources. Ground disturbance in these underlying geological formations may encounter paleontological resources. However, project activities are unlikely to extend below the Holocene soils/Holocene alluvium to these underlying soils.

**Discussion:**

- a) *Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?*

**Potentially Significant Unless Mitigation Incorporated.** No cultural resources were identified within or adjacent to the project area. However, significant buried archaeological

deposits could occur in the northern portion of the project area where ground disturbance is planned within poorly-developed Clear Lake Clay. Prehistoric materials can include flaked-stone tools (e.g. projectile points, knives, choppers) or obsidian, chert, basalt, or quartzite tool making debris; bone tools; culturally darkened soil (i.e., midden soil often containing heat-affected rock, ash and charcoal, shellfish remains, faunal bones, and cultural materials); and stone milling equipment (e.g., mortars, pestles, handstones). Prehistoric archaeological sites often contain human remains. Historical materials can include wood, stone, concrete, or adobe footings, walls and other structural remains; debris-filled wells or privies; and deposits of wood, glass, ceramics, metal, and other refuse. Implementation of the following mitigation measures would reduce impacts to previously undiscovered resources to a less than significant level.

**Mitigation Measure CULT-1:** A qualified archaeologist shall monitor ground-disturbing project activities in the northern portion of the project area to identify and evaluate any archaeological deposits that may constitute a historical or unique archaeological resource (as defined in the *CEQA Guidelines* at Section 15064.5 and Section 21083.2) or a historic property (as defined at 36 CFR §800.16(1)(1)).

**Mitigation Measure CULT-2:** If deposits of prehistoric or historical archaeological materials are discovered during non-monitored project activities in the northern and central portions of the project area, all work within 25 feet of the discovery shall be redirected and a qualified archaeologist contacted, if one is not present, to assess the situation, consult with agencies as appropriate, and make recommendations for the treatment of the discovery. The City of Richmond shall also be notified. Project personnel shall not collect or move any archaeological materials.

It is recommended that adverse effects to the finds be avoided by project activities. If avoidance is not feasible, the archaeological deposits shall be evaluated to determine if they qualify as a historical resource or unique archaeological resource, or as historic property. If the deposits do not so qualify, avoidance is not necessary. If the deposits do so qualify, adverse effects on the deposits must be avoided, or such effects must be mitigated. Mitigation may consist of, but is not limited to, recovery and analysis of the archaeological deposit; recording the resource; preparing a report of findings; and accessioning recovered archaeological materials at an appropriate curation facility. Educational public outreach may also be appropriate.

Upon completion of the assessment, the archaeologist shall prepare a report documenting the methods and results, and provide recommendations for the treatment of the archaeological deposits discovered. The report shall be submitted to the cities of Richmond and El Cerrito and the Northwest Information Center (NWIC).

- b) *Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?*

**Potentially Significant Unless Mitigation Incorporated.** No archaeological resources, as defined by §21083.2, have been identified in the project area. Archaeological resources are not anticipated to be discovered during project activities. If, however, such resources are

discovered, implementation of Mitigation Measure CULT-2 described above, would reduce potential impacts to a less than significant level.

- c) *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

**Potentially Significant Unless Mitigation Incorporated.** No paleontological resources were identified in the project area. However, some of the geological deposits underlying the project area Late Pleistocene alluvium and Miocene Contra Costa Group, are sensitive for paleontological resources. Ground disturbance in these underlying geological formations may encounter paleontological resources. However, project activities are unlikely to extend below the Holocene soils/Holocene alluvium to these deeper geologic formations. In the event that paleontological resources are encountered, implementation of the following mitigation measure would reduce impacts to a less than significant level.

**Mitigation Measure CULT-3:** If paleontological resources are encountered during project subsurface construction, all ground-disturbing activities within 25 feet shall be redirected and a qualified paleontologist contacted to assess the situation, consult with agencies as appropriate, and make recommendations for the treatment of the discovery. Project personnel shall not collect or move any paleontological materials. Adverse effects to such deposits shall be avoided by project activities.

Paleontological resources are considered significant if they may provide new information regarding past life forms, paleoecology, stratigraphy, or geological formation processes. If found to be significant, and project activities cannot avoid the paleontological resources, adverse effects to paleontological resources shall be mitigated. Mitigation may include monitoring, recording the fossil locality, data recovery and analysis, a final report, and accessioning the fossil material and technical report to a paleontological repository. Public educational outreach may also be appropriate.

Upon completion of the assessment, a report documenting methods, findings, and recommendations shall be prepared and submitted to the cities of Richmond and El Cerrito, and, if paleontological materials are recovered, a paleontological repository, such as the University of California Museum of Paleontology.

- d) *Disturb any human remains, including those interred outside of formal cemeteries?*

**Potentially Significant Unless Mitigation Incorporated.** Section 7050.5 of the California Health and Safety Code states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined whether or not the remains are subject to the coroner's authority. There is no indication that human remains are present within the proposed project site. Implementation of the following mitigation measure would ensure that potential impacts to human remains, should they be encountered, would be reduced to a less than significant level.

**Mitigation Measure CULT-4:** In the event that human remains are encountered, work within 25 feet of the discovery shall be redirected and the County Coroner notified immediately. At the same time, a qualified archaeologist shall be contacted to assess the situation and consult with agencies as appropriate. Project personnel shall not collect or move any human remains and associated materials. If the human remains are of Native American origin, the Coroner shall notify the Native American Heritage Commission within 24 hours of this identification. The Native American Heritage Commission will identify a Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods. Upon completion of the assessment, the archaeologist shall prepare a report documenting the methods and results, and provide recommendations for the treatment of the human remains and any associated cultural materials, as appropriate and in coordination with the recommendations of the MLD. The report shall be submitted to the cities of Richmond and El Cerrito and the Northwest Information Center.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>VI. GEOLOGY AND SOILS.</b> Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Affected Environment**

A Geotechnical Study (Geotecnia 2010) was prepared for the proposed project. The information provided below is summarized from the geotechnical report.

The project area is located in the Coast Ranges Geomorphic Province, which includes San Francisco Bay and the northwest-trending mountains that parallel the coast of California. Tectonic forces formed these features resulting in extensive folding and faulting of the area. The oldest rocks in the area include sedimentary, volcanic, and metamorphic rocks of the Franciscan Complex, and sandstone, shale, and conglomerate of the Great Valley Sequence. These units are Jurassic to Cretaceous in age and form the basement rocks in the region.

A published geologic map of the area (Dibblee, 1980) shows the site being underlain by Quaternary Age alluvium. The nearest active fault is the Type-A Hayward Fault, located about 0.9 miles (1.5 kilometers) northeast of the project site. The project site is outside the 500-foot wide Alquist-Priolo Earthquake Fault Zone, but inside the 2-kilometer-wide Near Source Zone associated with the Hayward Fault (CDMG 1997).

The project site soils are mapped as Clear Lake clay in the northern half and as Tierra loam, 2 to 9 percent slopes, in the southern half (*USDA Soil Survey of Contra Costa County, California, 1977*). The soils observed and sampled west of San Pablo Avenue consist of gravelly, mixed, imported fill materials that do not match either of the mapped soil descriptions. The exception is soil on the bank of a ditch northwest of Baxter Creek that appears similar to Tierra loam.

Fresh groundwater was encountered at a depth of about 10 feet in borings conducted as part of the geotechnical study. The groundwater level is expected to fluctuate with changes in annual and seasonal precipitation, irrigation, pumping and other factors.

The majority of the site is relatively flat, with an average elevation of approximately 60 feet above mean sea level. The area west of San Pablo Avenue slopes slightly to the southwest.

### **Discussion**

- a) *Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:*
- i) *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*

**Less Than Significant Impact.** Surface rupture occurs when the ground surface is broken due to fault movement during an earthquake. The location of surface rupture generally can be assumed to be along an active or potentially active major fault trace. The site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone (Geotecnia 2010). The nearest Alquist-Priolo Earthquake Fault Zone is the Hayward Fault, located approximately 1 mile east of the project site. No active or potentially active faults have been mapped at the project site; therefore, potential for fault rupture at the site is low.

- ii) *Strong seismic ground shaking?*

**Potentially Significant Unless Mitigation Incorporated.** The project site and the entire San Francisco Bay Area is in a seismically active region subject to strong seismic ground shaking. Ground shaking is a general term referring to all aspects of motion of the earth's surface resulting from an earthquake, and is normally the major cause of damage in seismic events. The extent of ground-shaking is controlled by the magnitude and intensity of the earthquake, distance from the epicenter, and local geologic conditions. The Richmond Bay Plain where the project site is located is subject to a heightened risk of

ground shaking because of a greater depth of soft alluvial soils and bay mud (City of Richmond 2009). According to the City of Richmond General Plan Map 12.4 Seismic Shaking Potential, the project site is on alluvium with a depth of 50 to 200 feet. Major active faults in the region that could cause ground shaking at the project site include the Hayward, Concord/Green Valley, Calaveras, Greenville and San Andreas Faults.

Implementation of Mitigation Measure GEO-1, described below, would reduce potential geotechnical impacts related to groundshaking to a less than significant level.

**Mitigation Measure GEO-1:** The proposed project shall be constructed using the recommendations of the Geotechnical Study prepared by Geotecnia Consulting Geotechnical Engineers (Geotecnia 2010) and the requirements of the Uniform Building Code to minimize any geophysical risks associated with construction of the proposed project. These recommendations are as follows:

- The foundations for the proposed bridge over Baxter Creek shall consist of either helical piers extending into the dense silty sandy layer or spread footings bearing into the dense silty sand layer below a depth of about nine feet.
- The recommendations contained in the latest edition of the California Building Code (CBC) shall be followed to reduce potential damage to the structure from earthquake shaking, as applicable.
- Helical piers with a minimum of two helixes shall be used, with the upper helix at a depth of at least 7 feet below the bottom of the abutments. The diameter of the upper helix shall be 14 inches. The lower helix shall have a diameter of 12 inches and be 3 feet below the upper helix. The actual minimum required depth to each two-helix pier will need to be determined during construction based on the actual torque during installation.
- A geotechnical engineer shall be present on a full-time basis during installation of the helical piers to observe driving of each of the helical piers and document the driving pressure and torque, estimate the actual ultimate capacity of each pier and determine the actual required depth for each pier.
- The contractor shall perform at least one pin test per abutment to confirm the estimated ultimate capacity of the piers.
- Helical piers shall be placed approximately 70 inches (about 6 feet) apart.
- Spread footings for the proposed bridge abutments shall be at least 18 inches wide and 9 feet deep, or should extend into the underlying dense silty sand layer (below the black fat clay layer, whichever is deeper).
- The geotechnical engineer shall check the footing excavations, prior to placing any forms or steel reinforcement to evaluate the appropriate depth for the actual earth materials encountered, confirm that the bottoms of the excavations are into the dense silty, sand layer, and evaluate the need for over-excavation or re-compaction.

- Backfill materials within the active zone shall consist of import, select (non-expansive), granular soils. Any of the black fat clay soils within the active zone shall be excavated out and replaced with non-expansive granular backfill.
- Wall select backfill shall be spread in level lifts not exceeding 8 inches in thickness. Each lift shall be brought to at least optimum moisture content and compacted to not less than 90 percent relative compaction, per ASTM D1557. Retaining walls may yield slightly during backfilling. Therefore, walls shall be properly braced during the backfilling operations.
- Retaining walls shall be fully backdrained. The backdrains shall consist of a 40 inch diameter, rigid, perforated pipe, sloped to drain by gravity, and surrounded by a drainage blanket. The drainage blanket shall consist of clean, free-draining crushed rock or gravel, wrapped in a filter fabric.
- A geotechnical engineer shall be retained to review the geotechnical aspects of the project plans and structural calculations, as appropriate to evaluate if they are in general conformance with the intent of the geotechnical recommendations.
- A geotechnical engineer shall be retained to observe the geotechnical aspects of construction, particularly grading, installation of the helical piers, footing excavations, subsurface drainage installation, overexcavations and placement and compaction of select fill or backfill, and to perform appropriate field and laboratory testing, as applicable.

iii) *Seismic-related ground failure, including liquefaction?*

**Potentially Significant Unless Mitigation Incorporated.** Liquefaction is the transformation of saturated, loose, fine-grained sediment to a fluid-like state because of earthquake shaking or other rapid loading. Soils most susceptible to liquefaction are loose to medium dense, saturated sands, silty sands, sandy silts, non-plastic silts and gravels with poor drainage, or those capped by or containing seams of impermeable sediment. According to the Association of Bay Area Government's liquefaction susceptibility mapping (ABAG 2010), the soil liquefaction potential on the project site is moderate. According to the City of Richmond General Plan, Map 12.2 Liquefaction Potential, liquefaction potential is present in the project area.

Implementation of Mitigation Measure GEO-1, described above, would reduce potential geotechnical impacts related to liquefaction to a less than significant level.

iv) *Landslides?*

**No Impact.** The project area is generally level and is therefore not subject to landslides. According to the City of Richmond General Plan Map 12.1 Landslide Potential, the project site is in Category 1- Stable. Category 1 applies to areas of 0 to 5 percent slope that are not underlain by landslide deposits. Implementation of the proposed project would not adversely impact persons or structures due to landslides.

- b) *Result in substantial soil erosion or the loss of topsoil?*

**Less Than Significant Impact.** Construction activities have the potential to disrupt soil and cause erosion. However, an Erosion Control Plan would be prepared prior to any ground disturbance activities to provide the details of the erosion control measures to be applied on the project site during the construction period. The Erosion Control Plan would include Best Management Practices (BMPs) designed to minimize sediment in site runoff during construction. BMPs designed to reduce erosion of exposed soil may include, but are not limited to: soil stabilization controls, watering for dust control, perimeter silt fences, placement of hay bales, and sediment basins. Disturbed portions of the project area would be vegetated following construction activities. Implementation of an Erosion Control Plan would reduce potential impacts to soil erosion or the loss of topsoil to less than significant levels.

- 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?*

**Potentially Significant Unless Mitigation Incorporated.** As described above, the potential for hazard from landslide is low and the potential for liquefaction is moderate. Therefore, the potential for liquefaction induced lateral spreading is also moderate. The project site is not located on Karst formations and has not been subjected to mining activities; thus, the risk of subsidence or collapse is expected to be low. Implementation of Mitigation Measure GEO-1, described above, would ensure that unstable soil conditions such as liquefaction and lateral spreading would be mitigated as part of the design and construction of the proposed project.

- d) *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?*

**Potentially Significant Unless Mitigation Incorporated.** Expansion and contraction of volume can occur when expansive soils undergo alternating cycles of wetting (swelling) and drying (shrinking). During these cycles, the volume of the soil changes markedly. Expansive soils are common throughout California and can cause damage to foundations and slabs unless properly treated during construction. The soils at the project site have high clay content, and thus, a high potential to be expansive. Implementation of Mitigation Measure GEO-1, described above, would reduce potential impacts associated with expansive soil to a less than significant level.

- e) *Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?*

**No Impact.** Septic tanks and alternative wastewater disposal systems would not be installed on the project site. Therefore, implementation of the proposed project would not result in impacts to soils associated with the use of such wastewater treatment systems.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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**VII. GREENHOUSE GAS EMISSIONS.** Would the project:

- |  |                          |                                     |                                     |                          |
|--|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?                                 | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

**Affected Environment**

Unlike emissions of criteria and toxic air pollutants, which have local or regional impacts, emissions of greenhouse gases (GHGs) that contribute to global climate change have a broader global impact. Global climate change is a process whereby GHGs accumulating in the atmosphere contribute to an increase in the temperature of the earth’s atmosphere. The principal GHGs contributing to global climate change are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), and fluorinated compounds. These gases allow visible and ultraviolet light from the sun to pass through the atmosphere, but they prevent heat from escaping back out into space. Among the potential implications of global climate change are rising sea levels, and adverse impacts to water supply, water quality, agriculture, forestry, and habitats. In addition, global warming may increase electricity demand for cooling, decrease the availability of hydroelectric power, and affect regional air quality and public health. Like most criteria and toxic air pollutants, much of the GHG production comes from motor vehicles. GHG emissions can be reduced to some degree by improved coordination of land use and transportation planning on the city, county and subregional level, and other measures to reduce automobile use. Energy conservation measures can contribute to reductions in GHG emissions.

The BAAQMD currently does not have an adopted threshold of significance for GHG emissions. However, BAAQMD is in the process of developing GHG thresholds and held hearings in late 2009 and January 2010. BAAQMD released the most recent draft of the CEQA Air Quality Guidelines on May 3, 2010, which is an update to the 1999 CEQA Guidelines. The BAAQMD Board of Directors approved the CEQA Guidelines, including the GHG threshold of significance in June 2010.

The BAAQMD does not have an adopted Threshold of Significance for construction-related GHG emissions. However, BAAQMD recommends that the Lead Agency quantify and disclose GHG emissions that would occur during construction, and make a determination on the significance of these construction generated GHG emission impacts in relation to meeting AB 32 GHG reduction goals. The Lead Agency is encouraged to incorporate best management practices, such as recycling at

least 50 percent of construction waste or demolition materials, to reduce GHG emissions during construction, as applicable.

For land use development projects (i.e., residential, commercial, industrial, and public land uses and facilities), the proposed threshold of significance for GHG emissions is (1) compliance with a qualified climate action plan or qualified general plan; (2) annual GHG emissions less than 1,100 metric tons per year; or (3) annual GHG emissions less than 4.6 metric tons per service population (residents plus employees).

GHG emissions associated with implementation of the proposed project would occur over the short term from construction activities, consisting primarily of emissions from equipment exhaust. Long-term emissions from the proposed project are not expected to be a significant source of GHG emissions as the proposed project would provide a trail connection and restore and realign existing channelized segments of Baxter Creek.

The primary existing sources of human-caused GHGs in the project area are vehicle emissions.

**Discussion:**

- a) *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance?*

**Potentially Significant Unless Mitigation Incorporated.** GHG emissions associated with implementation of the proposed project would occur over the short term from construction activities, consisting primarily of emissions from equipment exhaust.

*Long-Term GHG Emissions.* The proposed project would provide a trail connection to the Richmond and Ohlone Greenways and would restore and realign existing channelized segments of Baxter Creek. The proposed project would not cause a long-term increase in GHG emissions.

*Short-Term GHG Emissions.* Construction would produce combustion emissions from various sources. During site preparation and construction of the project, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically use fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O). Furthermore, CH<sub>4</sub> is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

Implementation of Mitigation Measure GHG-1 would ensure that the proposed project would not generate greenhouse gas emissions that may have a significant impact on the environment, based on any applicable threshold of significance.

**Mitigation Measure GHG-1:** To the extent feasible and to the satisfaction of the City of Richmond, the following measures shall be incorporated into the design and construction of the project:

- On-site idling of construction equipment shall be minimized (no more than 5 minutes maximum);

- Biodiesel shall be used as an alternative fuel to diesel for at least 15 percent of the construction vehicles/equipment used if there is a biodiesel station within 5 miles of the project site;
- At least 10 percent of building materials shall be local to the extent feasible; and
- At least 50 percent of construction waste or demolition materials shall be recycled.

b) *Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?*

**Less Than Significant Impact.** The proposed project is consistent with all the applicable local plans, policies and regulations and would not conflict with the provisions of AB 32, the applicable air quality plan, or any other State or regional plan, policy or regulation of an agency adopted for the purpose of reducing greenhouse gas emissions.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>VIII. HAZARDS.</b> Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 1/4 mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project located within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Affected Environment**

Land uses in the project area include commercial, industrial, residential and agricultural uses as well as regional transportation corridors including I-80, San Pablo Avenue, McDonald Avenue, and the BART tracks. Soils in the project area could be contaminated with petroleum by-products, lead from leaded fuel, fertilizers and pesticides, commercial and industrial byproducts, and/or household hazardous wastes such as cleaning products from stormwater runoff from existing and historic land uses in the project area.

The project site is not on a state-listed hazardous materials clean-up site. However, eight state-listed hazardous materials clean-up sites are located within 1,000 feet of the project site (SWRCB 2010). These are:

- Chevron, 4838 Macdonald Avenue, Richmond, CA, 94805: LUST Clean-up Site;
- Sakai Brothers Rose Company, 99 S. 47<sup>th</sup> Street, Richmond, CA 94804: LUST Clean-up Site;
- Oishi Nursery, 130 S. 47<sup>th</sup> Street, Richmond, CA 94804: LUST Clean-up Site;
- Home Depot, 11909 San Pablo Avenue, El Cerrito, CA 94530: LUST Clean-up Site;
- McDonalds, 11821 San Pablo Avenue, El Cerrito, CA 94530: LUST Clean-up Site;
- Checker Tune-up, 11847 San Pablo Avenue, El Cerrito, CA 94530: LUST Clean-up Site;
- Val Strough Honda, 11820 San Pablo Avenue, El Cerrito, CA 94530: LUST Clean-up Site; and
- Busy Bee Cleaners in the Bishop Center, 11868-11896 San Pablo Avenue, El Cerrito, CA 94530: Clean-up Program Site.

The State Water Resources Control Board's Geotracker website indicates that all of these clean-up sites are closed cases.

According to the California Department of Toxic Substances Control (DTSC) EnviroStor website, the parcels located along S. 47<sup>th</sup> Street are currently undergoing remediation. The remediation site consists of three former nursery sites, including the Sakai Brothers Rose Company and the Oishi Nursery. Historically, several underground storage tanks (USTs) were removed from these sites and case closure was granted by the RWQCB based on groundwater monitoring. However, further environmental investigation of these properties conducted in 2000 and 2001 identified soil and groundwater contamination requiring remediation. Potential contaminants include lead, petroleum, pesticides and volatile organics (VOCs). The area is undergoing remediation as part of the proposed Miraflores development project, which would redevelop the site for residential uses. The Remedial Action Plan has been approved and demolition and soil clean up activities have begun on the project site, with expected completion in 2012. Therefore, this hazardous site is not expected to impact the project site.

**Discussion:**

- a) *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

**Less Than Significant Impact.** The proposed project would provide a new trail connection between the Richmond and Ohlone Greenways and would restore and realign existing channelized segments of Baxter Creek. After project construction, no routine transport or disposal of hazardous materials would be associated with the proposed project. While gas and diesel fuel would typically be used by construction vehicles, Best Management Practices (BMPs) would be utilized to ensure that no construction-related fuel hazards occur. Use, storage, transport and disposal of hazardous materials (including any hazardous wastes) during construction activities would be performed in accordance with existing local, state, and federal hazardous materials regulations. Therefore, implementation of the proposed project would not create a significant

hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. This impact is considered less than significant.

- 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?*

**Potentially Significant Unless Mitigation Incorporated.** As described in Section VII(a) above, operation of the project would not require routine use of hazardous materials; therefore, no hazards or hazardous materials impacts related to long term operation of the project are anticipated. However, construction activities would include the use of limited quantities of ordinary equipment fuels and fluids. In the unlikely event of a spill, fuels would be controlled and disposed of in accordance with applicable regulations. Implementation of Mitigation Measure HAZ-1 would ensure that handling of materials during construction activities would not create a hazard to the public or the environment, thereby reducing potential impacts to less than significant levels.

**Mitigation Measure HAZ-1:** Project construction plans shall include emergency procedures for responding to hazardous materials releases for materials that would be brought onto the site as part of construction activities. The emergency procedures for hazardous materials releases shall include the necessary personal protective equipment, spill containment procedures, and training of workers to respond to accidental spills/releases. The Contractor shall be required to have on hand at all times adequate absorbent materials and containment booms to handle a spill equivalent to the largest container of fuels or oil in their possession.

- c) *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 1/4 mile of an existing or proposed school?*

**No Impact.** The closest schools to the project site are the Prospect Sierra and King Elementary Schools, approximately 1/2 mile to the east and west, respectively. No existing or proposed schools are located within 1/4 mile of the project site, and the proposed project would not use or emit large quantities of hazardous materials that would pose a health risk to students. Therefore, the proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 1/4 mile of an existing or proposed school.

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

**No Impact.** The project site is not included on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

- e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?*

**No Impact.** The project site is not located within an airport land use plan, or within two miles of a public airport or public use airport. The closest airport to the project site is the Oakland International Airport, approximately 10 miles to the south. Therefore, the proposed project would not result in a safety hazard for people residing or working in the project area.

- f) *For a project located within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?*

**No Impact.** The project site is not in the vicinity of a private airstrip. Therefore, implementation of the proposed project would not expose persons to airport-related hazards.

- g) *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

**No Impact.** The proposed project would not interfere with an adopted emergency response plan or emergency evacuation plan.

- h) *Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?*

**Less Than Significant Impact.** The project site is located in an area of moderate wildland fire threat (ABAG 2010). However, the project site is in a developed area, and the proposed project is a new trail connection that would not include flammable materials or any structures for human occupation. In addition, as part of the building permit process, all plans would be reviewed for compliance with applicable Building and Fire Department requirements, pursuant to the Uniform Building and Fire Codes, and all other related City requirements. Therefore, the project would not expose people or structures to significant loss, injury, or death from wildfires beyond the existing conditions.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>IX. HYDROLOGY AND WATER QUALITY.</b> Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding of as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### **Affected Environment**

The proposed project is located in the Baxter Creek watershed, which drains an area of approximately 8.6 square miles. The longest branch of Baxter Creek is 2.87 miles and the total channel length within the watershed is 14.44 miles. Baxter Creek originates in underground springs beneath the El Cerrito and Richmond hills and runs in three branches down narrow watersheds through Canyon Trail, Poinsett, and Mira Vista Parks. The three branches converge at the intersection of San Pablo and Macdonald Avenues just north of the project site.

On the project site, the east-west reach of Baxter Creek (mapped as the South Fork of Baxter Creek) is an excavated, relatively straight, trapezoidal, earthen channel that flows from east to west. A stream segment, labeled as Baxter Creek in a small park on the eastern edge of San Pablo Avenue, had similar flow and drains into a culvert inlet in approximate alignment with the on-site channel. The South Fork of Baxter Creek includes 140 linear feet of culvert under San Pablo Avenue.

The western end of the east-west channel of the South Fork of Baxter Creek connects to a channel draining the outlet of an underground concrete box culvert (mapped as the Middle Fork of Baxter Creek) that enters the site from the north. The upper reach of the Middle Fork channel is also excavated, steeply trapezoidal, but has rock rip-rap armored bed and lower banks than the South Fork channel. The bed is mostly un-vegetated. The combined Middle Fork channel runs westward for approximately 50 feet and then abruptly turns south in a vertical-sided concrete box that runs under a bridge on the abandoned railroad grade. South of the bridge, the box transitions to a concrete-lined trapezoidal channel that runs straight beyond the southern site boundary.

The project site is not located within the 100-year floodplain (i.e., an area in which there is a one percent chance per annum of a one hundred-year storm event) according to maps published by the Federal Emergency Management Agency (FEMA) (2009). The Hydraulics Report (A-N West, Inc. 2010) prepared for the proposed project concluded that the existing channels on the project site are capable of accommodating a 25-year storm event. Between the Caltrans box culvert at I-80 and the downstream limit of the project site, the 50-year discharge was found to rise above the east bank of the existing concrete channel, and the 100-year discharge was found to rise above both banks of the channel. Both discharges may be expected to overflow to the east on to the BART right-of-way and then south onto the Home Depot property. The portion of the 100-year flow rising above the west bank of the existing concrete channel would flood the project site.

Baxter Creek is not listed on the State's 303(d) List of Impaired Water Bodies.

According to the geotechnical study prepared for the project site (Geotecnia 2010), free groundwater was encountered at a depth of about 10 feet. The groundwater level is anticipated to fluctuate with changes in annual and seasonal precipitation, irrigation, pumping and other factors.

### **Discussion:**

a) *Violate any water quality standards or waste discharge requirements?*

**Potentially Significant Unless Mitigation Incorporated.** Development of the proposed project would result in a small increase in the amount of impervious surface area and an associated increase in the rate and volume of stormwater runoff from the site. City of Richmond

compliance with the NPDES Permit is mandated by state and federal laws and new construction projects are required to comply with storm water general permits.

Construction activities have the potential to disrupt soil and cause erosion and increase sediment runoff. An Erosion Control Plan would be prepared prior to any ground disturbance activities to provide the details of the erosion control measures to be applied on the site during construction. The Erosion Control Plan would include Best Management Practices (BMPs) designed to minimize sediment in site runoff during construction. BMPs designed to reduce erosion of exposed soil may include, but are not limited to: soil stabilization controls, watering for dust control, perimeter silt fences, placement of hay bales, and sediment basins. Any disturbed portions of the project area would be revegetated following construction activities.

Materials used during construction of paved trails may have chemicals that are potentially harmful to aquatic resources and water quality. Accidents or improper use of these materials could release contaminants to the environment. Additionally, oil and other petroleum products used to maintain and operate construction equipment could be accidentally released.

If dewatering is necessary areas where groundwater is encountered within the planned depth of excavation, depending on surface and groundwater levels at the time of construction, a permit for discharge of the extracted groundwater would be obtained from the Regional Water Quality Control Board (RWQCB). This discharge shall be consistent with RWQCB requirements and as such would not result in a violation of water quality standards or waste discharge requirements.

Implementation of Mitigation Measure HYDRO-1 through HYDRO-4 would ensure compliance with all regulatory requirements and would reduce potential impacts to less than significant levels.

**Mitigation Measure HYDRO-1:** A drainage plan for the site shall be prepared to ensure that proposed storm drainage systems are adequate to channel runoff from the proposed project.

**Mitigation Measure HYDRO-2:** The City of Richmond shall file a Notice of Intent (NOI) with the RWQCB to be covered under the Statewide General Permit for Discharges of Stormwater Runoff Associated with Construction Activity and proposed control measures that are consistent with the State General Permit.

**Mitigation Measure HYDRO-3:** A Stormwater Pollution Prevention Plan (SWPPP) shall be developed and implemented in consultation with the City of Richmond, RWQCB, and other regulatory agencies. The SWPPP shall include BMPs to reduce potential impacts to surface water quality through the construction and life of the project. The SWPP shall adhere to the following requirements:

- The SWPPP shall include measures to avoid creating contaminants, minimize the release of contaminants, and water quality control measures to minimize contaminants from entering surface water or percolating into the ground.

- The water quality control measures shall address both construction and operations periods.
- Fluvial erosion and water pollution related to construction shall be controlled by a construction water pollution control program that shall be filed with the appropriate agency and kept current throughout any site development phase.
- The water pollution prevention program shall include BMPs, as appropriate, given the specific circumstances of the site and project.
- The SWPPP shall be submitted for review and approval to the RWQCB.
- A spill prevention and countermeasure plan shall be incorporated into the SWPPP.

**Mitigation Measure HYDRO-4:** If dewatering is necessary in areas where groundwater is encountered within the planned depth of excavation, the City shall obtain a permit for discharge of the extracted groundwater from the RWQCB prior to construction in areas where dewatering would be required. Permit conditions shall ensure that project discharge shall be consistent with RWQCB requirements and as such shall not result in violation of 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 (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?*

**Potentially Significant Unless Mitigation Incorporated.** The project would not result in the construction of large areas of impervious surfaces that would prevent water from infiltrating into the groundwater nor would it result in direct additions or withdrawals to existing groundwater. De-watering may be required if groundwater is encountered during excavation and realignment of Baxter Creek. However, no groundwater would be extracted per se. Dewatering, if necessary, would be conducted in compliance with the permit conditions of the Regional Water Quality Control Board (RWQCB). Implementation of Mitigation Measure HYDRO-4, described above, would reduce potential impacts to a level below significance.

- 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 which would result in substantial erosion or siltation on- or off-site?*

**Potentially Significant Unless Mitigation Incorporated.** The proposed project would relocate the existing channels and connect to the existing trapezoidal concrete lined channel at the south edge of the site. The new channel would be an unlined trapezoidal channel with an unlined trapezoidal low flow channel cut into its invert. Rock riprap would be placed where the restored creek segments connect to existing culverts and channels. However, improvements to the creek would not result in on-site or off-site effects from erosion and siltation. During construction, Best Management Practices (BMPs) would be implemented so that on-site and off-site erosion

and sedimentation would be controlled to the extent practicable. Implementation of Mitigation Measures HYDRO-1 through HYDRO-3 would ensure regulatory compliance and reduce potential impacts related to erosion and siltation to a less than significant level.

- d) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?*

**Potentially Significant Unless Mitigation Incorporated.** As described in the Hydraulics Report (A-N West Inc. 2010), the existing channels on the project site are capable of accommodating a 25-year storm event. Under the existing conditions, the channels on the project site do not accommodate the 50- or 100-year discharge. Both discharges may be expected to overflow to the east on to the BART right-of-way and then south onto the Home Depot property. As proposed under the project, the realigned channels would contain both the 10-year and 25-year event discharges. Since the proposed project would have no effect on the existing concrete channel between the downstream limit of the project and the Caltrans box culvert, the 50-year discharge would still rise above the east bank and the 100-year discharge would still rise over both banks of the existing concrete channel. Because the post-construction conditions would be the same as under existing conditions, the proposed project would not result in flooding on- or off-site.

Development of the proposed project would result in a small increase in the amount of impervious surface area and a small increase in rate and volume of stormwater runoff from the site. The proposed project would relocate the existing channels and connect to the existing trapezoidal concrete lined channel at the south edge of the site. Implementation of Mitigation Measures HYDRO-1 through HYDRO-3 would ensure regulatory compliance and reduce potential stormwater impacts to less than significant levels.

- e) *Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*

**Potentially Significant Unless Mitigation Incorporated.** See Response VIII(d).

- f) *Otherwise substantially degrade water quality?*

**Potentially Significant Unless Mitigation Incorporated.** See Response VIII(a).

- 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?*

**No Impact.** No housing units are proposed as part of the project.

- h) *Place within a 100-year flood hazard area structures which would impede or redirect flood flows?*

**Less Than Significant Impact.** The project site is not located within the 100-year floodplain (i.e., an area in which there is a one percent chance per annum of a one hundred-year storm

event) according to maps published by the Federal Emergency Management Agency (FEMA) (2009). As outlined in the project description, the proposed bridge structure would have a 65-foot soffit elevation, which is more than one foot higher than the projected 100-year flood level. Therefore, the proposed project would not include any structures that would impede or redirect flows. Impacts related to flood hazards would be less than significant.

- i) *Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding of as a result of the failure of a levee or dam?*

**No Impact.** The proposed project site is not located in the inundation area for any levee or dam in the project vicinity (ABAG 1995).

- j) *Inundation by seiche, tsunami, or mudflow?*

**No Impact.** According to the City of Richmond Draft General Plan Update (2011), Map 12.5, the project site is not located in the tsunami inundation area. Therefore, no impacts related to seiche and tsunami would occur. Mudflows are associated with hilly terrain, and the project area is flat; therefore, there are no impacts associated with mudflows.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>X. LAND USE AND PLANNING.</b> Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Affected Environment:**

Existing land uses in the project area consist of regional and local transportation corridors including I-80, San Pablo Avenue, Macdonald Avenue, the BART tracks, and local roadways such as Ohio Avenue; and commercial and industrial development such as restaurants (Taco Bell) and warehousing uses. Residential development also exists in the project vicinity.

The City of Richmond General Plan (1994) land use designation for the project site is General Commercial. Typical uses within this category vary in size and type and may include business services, restaurants, retail shops, auto sales and repairs, highway-oriented uses, plant nurseries, plumbing and hardware stores. Residential and commercial mixed uses are also found within this category.

The Zoning Designation for the project site is C-2 (General Commercial). The C-2 zone is intended to create, preserve and enhance areas with a diverse variety of office, consumer and business service activities needing visually-prominent and attractive locations and abundant vehicular access. C-2 general commercial districts are characterized by a linear facade configuration along major thoroughfares with 100 to 150 foot deep lots abutting residential districts. Allowed uses should generate minimal noise, odor or traffic nuisance impacts to adjacent residential.

The City of Richmond is undertaking a General Plan Update to guide growth and development over the coming ten to twenty years. The City of Richmond Revised Draft General Plan Update (2011) land use designations for the project site are Medium-Intensity Mixed-Use (Commercial Emphasis) and Medium-Intensity Mixed Use (Gateway and/or Community Node). The project site is within the area designated in the City’s General Plan as Change Area 1: Downtown/Macdonald Avenue (City of Richmond General Plan Map 3.3). This area is envisioned as a major activity center that builds upon local history to serve as the economic and cultural heart of the City.

A small portion of the project site lies within the City of El Cerrito. According to the El Cerrito General Plan (1999), the land use designation for the project site is Commercial/Mixed Use and Parks

& Recreation. The Parks & Recreation designation applies to the existing Ohlone Greenway. The Zoning Designation for the project site is CC - Community Commercial (City of El Cerrito, 2007). The Community Commercial designation is intended to “create, maintain, and enhance areas of the city that are appropriate for a wide variety of commercial and institutional uses along the city’s major transportation corridors, and in shopping districts or centers. These centers are intended to serve as centers of commercial activity and may include both pedestrian- and auto-oriented development. Residential uses are also allowed, particularly on upper floors.”

**Discussion:**

a) *Physically divide an established community?*

**No Impact.** The physical division of an established community typically refers to the construction of a physical feature (such as an interstate highway or railroad tracks) or removal of a means of access (such as a local road or bridge) that would impair mobility within an existing community, or between a community and outlying areas. The proposed project would provide a new trail connection between the Richmond and Ohlone Greenways and would restore and realign existing channelized segments of Baxter Creek. The proposed project would not physically divide an established community.

b) *Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?*

**Less Than Significant Impact.** The City of Richmond General Plan (1994), the City of Richmond Draft General Plan Update (2011), the City of Richmond Municipal Code (2010), the Richmond Greenway Master Plan (2003), the City of El Cerrito General Plan (1999), the City of El Cerrito Municipal Code (2007) and the San Pablo Avenue Specific Plan (2009) are the primary land use plans containing policies and regulations applicable to the proposed project. The proposed project is an allowable land use according to the general plan land use and zoning designations for the project site.

The proposed new Richmond and Ohlone Greenway trail connection is included in the City of Richmond Draft General Plan Update (2011), Circulation Element as a multi-use trail (page 4.8), on Map 4.1 Pedestrian and Bicycle Improvements as a Pedestrian and Bicycle Connector, and under Policy CR1.6 Comprehensive Network of Multi-use Trails. The general plan update also contains policies in support of restoring urban creeks (Policy CN1.3 and HW9.5). The new trail connection is included in the Capital Improvement Plan (CIP) for the fiscal years 2009-2010 through 2013-2014. The new trail connection is also included in the Richmond Greenway Master Plan (City of Richmond, 2003).

The City of Richmond has recently prepared and released for public review a revised draft Bicycle Master Plan (Fehr & Peers 2011). The proposed project is identified in the plan as a proposed Class I bicycle route connecting San Pablo Avenue to the Ohlone Greenway and is included in the list of near-term (five years) projects. The proposed project is also identified as a Tier 1 project in the recently completed draft Pedestrian Master Plan (Local Government Commission 2011).

The project site is within the San Pablo Avenue Specific Plan (MIG, 2009), which is intended to revitalize San Pablo Avenue within the Cities of El Cerrito and Richmond into an important mixed-use corridor in accordance with the City of El Cerrito General Plan (2003) and the City of Richmond Draft General Plan Update (2011). Policies T-1.3 and T-1.5 of the San Pablo Avenue Specific Plan relate to crosswalk installation and greenway connections.

The proposed project is consistent with all the goals, policies and ordinances of the relevant planning documents with implementation of the mitigation measures contained in this document.

- c) *Conflict with any applicable habitat conservation plan or natural community conservation plan?*

**No Impact.** The proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

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

**Affected Environment:**

Minerals are any naturally occurring chemical element or compound, or groups of elements and compounds, formed from inorganic processes and organic substances including, but not limited to, coal, peat and oil bearing rock, but excluding geothermal resources, natural gas and petroleum. Rock, sand, gravel and earth are also considered minerals by the Department of Conservation when extracted by surface mining operations. Mineral production in Richmond has been largely limited to sand, gravel and rock products. Mineral resources exist in Richmond in three places along the San Pablo-Potrero Hills Ridge (City of Richmond 2009). No known mineral resources are located on or near the project site.

**Discussion:**

a) *Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?*

**No Impact.** No known mineral resources are located on or near the project site. Therefore, the proposed project would not result in the loss of availability of a known mineral resource.

b) *Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?*

**No Impact.** See X(a), above.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XII. NOISE.</b> Would the project 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Affected Environment:**

Noise is usually defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, or sleep. Several noise measurement scales exist that are used to describe noise in a particular location. A *decibel* (dB) is a unit of measurement that indicates the relative intensity of a sound. The 0 point on the dB scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Changes of 3.0 dB or less are only perceptible in laboratory environments. Audible increases in noise levels generally refer to a change of 3.0 dB or more, as this level has been found to be barely perceptible to the human ear in outdoor environments. Sound levels in dB are calculated on a logarithmic basis. An increase of 10 dB represents a 10-fold increase in acoustic energy, while 20 dB is 100 times more intense, and 30 dB is 1,000 times more intense. Each 10 dB increase in sound level is perceived as approximately a doubling of loudness. Sound intensity is normally measured through the *A-weighted sound level* (dBA). This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive.

The primary existing noise source in the project area is vehicle traffic on I-80 and San Pablo Avenue. According to the City of Richmond Draft General Plan Update (Figure 12.7 - Future Noise Contours),

the noise level in the vicinity of I-80 is approximately 70 Community Noise Equivalent Level (CNEL). Other existing noise sources in the project area include the BART train.

**Discussion:**

- 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?*

**Potentially Significant Unless Mitigation Incorporated.** The long-term operational and short-term construction noise impacts of the proposed project are described below.

*Long-Term Operational Impacts.* The primary purpose of the proposed project is to provide a new multi-use trail connection between the Richmond Greenway and the Oholone Greenway in El Cerrito. The proposed trail would not accommodate vehicular traffic. The addition of the multi-use trail would add noise sources such as human voices or barking dogs. However, the noise sources would not typically be loud enough to disturb sensitive receptors in the project vicinity. Therefore, the long-term, operational phase of the proposed project would not expose persons to or generate noise levels in excess of standards in the local general plan or noise ordinance.

*Short-Term (Construction) Impacts.* Construction of the proposed project would require grading and earthwork activities that could generate noise levels that exceed established standards. Although these activities could result in infrequent periods of high noise, this noise would not be sustained and would occur only during the temporary construction period. Use of a jack hammer or other construction activity that would generate very high noise levels or ground borne vibration, if necessary, would not be sustained and would be of a short duration. Implementation of Mitigation Measures NOISE-1 and NOISE-2, described below, would reduce potential impacts to less than significant levels.

**Mitigation Measure NOISE-1:** Construction activities shall be limited to weekday hours between 7 a.m. and 7 p.m. and weekends and legal holidays between 9 a.m. and 8 p.m. consistent with the City of Richmond Community Noise Ordinance (Section 9.52).

**Mitigation Measure NOISE-2:** All equipment shall be maintained in proper working order, including proper muffling.

- b) *Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?*

**Potentially Significant Unless Mitigation Incorporated.** See response XII(a) above.

- c) *A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?*

**Less Than Significant Impact.** As described in response XII(a), noise from the new multi-use trail would not be substantial. Therefore, there would not be a substantial permanent increase in noise levels in the project vicinity above levels existing without the project.

- d) *A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?*

**Potentially Significant Unless Mitigation Incorporated.** Construction of the proposed project would require the use of construction equipment and would generate temporary periodic increases in ambient noise levels in the vicinity of the project site. Implementation of Mitigation Measures NOISE-1 and NOISE-2 would reduce this impact to a less than significant level.

- e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

**No Impact.** The project site is not located within an airport land use plan, or within two miles of a public airport or public use airport. The closest airport to the project site is the Oakland International Airport, approximately 10 miles to the south. Therefore, the proposed project would not expose people residing or working in the project area to excessive noise levels.

- f) *For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?*

**No Impact.** The proposed project is not located within the vicinity of a private airstrip.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XIII. POPULATION AND HOUSING.</b> Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Affected Environment:**

Existing land uses in the project area consist of regional and local transportation corridors including I-80, San Pablo Avenue, Macdonald Avenue, the BART tracks, and local roadways such as Ohio Street; and commercial and industrial development such as restaurants (Taco Bell), storage facilities, auto repair, and a Home Depot store. Residential development also exists in the project vicinity.

**Discussion:**

a) *Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*

**Less Than Significant Impact.** The proposed project is a multi-use trail that would connect the existing Richmond Greenway to the Ohlone Greenway in El Cerrito. The proposed project would not provide additional vehicle access or additional major infrastructure. The proposed project would not include any new housing, commercial or industrial space. Therefore, the proposed project would not directly or indirectly induce substantial population growth.

b) *Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?*

**No Impact.** No housing would be displaced as a result of the proposed project.

c) *Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?*

**No Impact.** See XIII(b), above.

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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**XIV. PUBLIC SERVICES.**

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

Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Affected Environment:**

The project site is in an urban area served by existing public services.

**Police Protection.** Police protection is provided to the City of Richmond by the Richmond Police Department (RPD). The project site is located in Beat 7 in the Northern Sector (City of Richmond Draft General Plan Update 2011, Map 12.6). The main police station is located at 1701 Regatta Boulevard, approximately 1.7 miles from the project site.

**Fire Protection.** Fire protection is provided by the Richmond Fire Department (RFD). RFD also has an automatic response agreement with the El Cerrito Fire Department and Contra Costa Fire District for service to San Pablo and neighboring unincorporated county areas of North Richmond and El Sobrante. The closest fire station to the project site is Station 66, located at 4100 Clinton Avenue, approximately 0.65 mile to the north.

**Schools.** The City of Richmond is served by the West Contra Costa County Unified School District (WCCUSD). The closest schools to the project site are the Prospect Sierra and King Elementary Schools, approximately 1/2 mile to the east and west, respectively.

**Parks.** For a discussion of parks, see Section XV. Recreation.

**Discussion:**

a) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental*

*impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: Fire protection, police protection, schools, parks, other public facilities?*

**No Impact.** The proposed project would not result in an increase in population or facilities that would require the provision of fire or police services, schools, parks, or other public facilities, or result in the need for physically altered facilities. The demand for public services would be the same as under existing conditions after the construction of the proposed project.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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**XV. RECREATION.**

- |  |                          |                                     |                                     |                          |
|--|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
| a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?                        | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |

**Affected Environment:**

The City of Richmond is served by an extensive network of approximately 60 parks and open space areas, ranging from large regional parks to small compact play lots/parks. Of this, 52 areas with 252 acres are City-owned parks. Eight areas with 3,377 acres are regional parks, including joint uses of open space on local school grounds. The closest parks to the project site are Tiller Park and Mira Vista Park.

**Discussion:**

- a) *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

**Less Than Significant Impact.** The proposed trail connection would serve the recreational needs of residents in the City and in the region by providing a connection between two existing trails, the Richmond Greenway and the Ohlone Greenway in El Cerrito. Implementation of the proposed project would likely increase the use of existing trails. However, it is not anticipated that such an increase in use would result in a physical deterioration of existing trail facilities. Therefore, this impact is considered less than significant.

- b) *Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

**Potentially Significant Unless Mitigation Incorporated.** The proposed project would include a multi-use trail to connect the Richmond Greenway to the Ohlone Greenway in El Cerrito. Implementation of the mitigation measures contained in this Initial Study would ensure that this recreational facility would not have an adverse physical effect on the environment.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>XVI. TRANSPORTATION/TRAFFIC.</b> Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with adopted polices, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Affected Environment:**

The project site is bounded by BART tracks on the south, I-80 on the west, Bissell Avenue on the north and San Pablo Avenue on the east. Primary vehicle access to the project site is provided via San Pablo Avenue.

The proposed project is the third phase of the Richmond Greenway Project, which would provide a continuous bicycle and pedestrian pathway in the City of Richmond (City) from Garrard Boulevard and the Richmond Parkway to San Pablo Avenue. The Richmond Greenway would extend along the abandoned Santa Fe railroad corridor to connect the San Francisco Bay Trail at the west with the Ohlone Greenway in the City of El Cerrito at the east. The first phase of the Richmond Greenway Project, known as the “western segment,” was completed in 2007. This segment connects with the Bay Trail at Garrard Avenue and continues to 23<sup>rd</sup> Street. The second phase, or “eastern segment,” which extends from 23<sup>rd</sup> Street to San Pablo Avenue, was constructed in 2009.

The proposed project is the third and final phase of the Richmond Greenway Project and would connect the previously-constructed segments with the Ohlone Greenway in El Cerrito by means of an at-grade signalized crossing on San Pablo Avenue.

**Discussion:**

- a) *Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?*

**Potentially Significant Unless Mitigation Incorporated.** The proposed project consists of the installation of a new multi-use trail, realignment of Baxter Creek, and installation of a signalized crossing on San Pablo Avenue. The proposed project is included in the City's Draft General Plan Update (2011) as part of the proposed bikeway and trail network. The proposed project is designed to provide a trail connection between the San Francisco Bay Trail and the Ohlone Greenway in the City of El Cerrito. After completion, the proposed project would not generate additional vehicle trips, but would increase the effectiveness of the circulation system by adding a new pedestrian and bicycle connection.

A small increase in traffic would occur in the project area during the construction phase of the proposed project from construction vehicles and construction workers accessing the site. The proposed project would also require lane closures for construction in the median of San Pablo Avenue. A small increase in traffic and temporary lane closures could cause an increase in traffic during construction activities. Construction activities would be short-term and temporary. In addition, it is likely that only one lane would be closed at a time. Implementation of Mitigation Measure CIRC-1 would reduce potential impacts associated with lane closures to a less than significant level.

**Mitigation Measure CIRC-1:** The contractor shall develop and implement a Traffic Control Plan prepared by a registered Traffic Engineer for work on San Pablo Avenue. Temporary speed limit restrictions shall be considered within the construction zone. The Traffic Control Plan shall define the use of flaggers, warning signs, lights, barricades, cones, etc. according to standard guidelines required by the City. Further the contractor shall maintain the work site, including traffic control, in a safe condition at all times, even outside of normal work hours. The Traffic Control Plan shall be submitted to the City of Richmond for review and approval prior to construction.

- b) *Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?*

**Potentially Significant Unless Mitigation Incorporated.** See XV(a), above.

- c) *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?*

**No Impact.** The project site is located approximately 10 miles north of the Oakland International Airport. Implementation of the proposed project would not result in a change to air traffic patterns.

- d) *Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

**Potentially Significant Unless Mitigation Incorporated.** The proposed project consists of installation of a multi-use trail and associated improvements, including a bridge over Baxter Creek and a signalized crossing at San Pablo Avenue. No incompatible uses or hazardous design features are associated with operation of the proposed project. However, during construction activities, a short-term increase in the potential for accidents involving motor vehicles, bicycles, and/or pedestrians could occur. Because of the temporary disruption to traffic flow, the removal of a traffic lane, the presence of construction equipment in the public right-of-way, and the localized increase in traffic congestion, drivers would be presented with unexpected driving conditions and obstacles, potentially resulting in an increase in automobile accidents. Implementation of Mitigation Measure CIRC-1, described above, would reduce potential impacts to a less than significant level.

- e) *Result in inadequate emergency access?*

**Less Than Significant Impact.** The proposed project is designed to provide a trail connection with a safe crossing for bicyclists and pedestrians, and emergency access would be similar to existing conditions after project completion. During construction activities, there could be slight delays to emergency access due to temporary lane closures and construction vehicles accessing the project site. However, construction activities would be short-term and temporary, and any emergency vehicles would be waved through during lane closures. Therefore, the proposed project would not result in inadequate emergency access.

- f) *Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?*

**No Impact.** The proposed project includes a multi-use trail to connect the San Francisco Bay Trail on the west to the Ohlone Greenway in El Cerrito on the east. Pedestrians and bicyclists would be permitted to use the new multi-use trail. Therefore, the proposed project would be compatible with adopted policies, plans or programs regarding public transit, bicycle or pedestrian facilities, and would increase the performance and safety of such facilities.

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

**Affected Environment:**

The project site is in an urban area served by existing public services.

**Water Supply.** The East Bay Municipal Utility District (EBMUD) has jurisdiction over the water service lines in Richmond. Potable water is supplied via the San Pablo Dam from the Mokelumne River in the Sierra Nevada and from local rain-fed reservoirs. Groundwater is only utilized for some irrigation purposes.

**Wastewater.** Four separate districts collect and treat wastewater in Richmond including the Richmond Municipal Sewer District, West County Wastewater District, EBMUD and Stege Sanitary Sewer District. The project site is located in the Richmond Municipal Sewer District.

A wastewater treatment plant is located in Point Richmond that treats the wastewater collected by the Richmond Municipal District. Treated effluent is combined with chlorinated effluent from the West

County Wastewater District (WCWD) and is then sent to WCWD facilities for drying and disposal at the West Contra Costa Sanitary Landfill.

Two overflow structures are located in the City of Richmond; one located at Harbour Way South and Wright Avenue and the other on Cutting Boulevard near the old boat launch. The City of Richmond has entered into a long-term contract with Veolia Water North America to operate and maintain Richmond Municipal Sewer District's sewer treatment and collection facilities.

**Stormwater.** The City of Richmond contracts with Veolia Water North America to operate and maintain its storm drainage facilities throughout the City.

**Solid Waste.** Richmond Sanitary Services, an affiliate of Republic Services, Inc., provides residential and commercial refuse, recycling and green waste collection services in the City. Republic Services owns and operates a 21-acre site in Richmond including the West County Sanitary Landfill (WCCSL), the Golden Bear Transfer Station, a household hazardous waste (HHW) facility and the Integrated Resource Recovery Facility (IRRF), which is operated by another affiliate, West County Resource Recovery, Inc.

**Gas and Electricity.** Pacific Gas & Electric (PG&E) provides natural gas and electricity in the Richmond area.

**Communication Facilities.** Southwestern Bell Communications (SBC) provides local telephone service to the Richmond area.

**Discussion:**

- a) *Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?*

**Potentially Significant Unless Mitigation Incorporated.** The proposed project entails construction of a new multi-use trail, realignment of Baxter Creek, and installation of a signalized crossing at San Pablo Avenue. No wastewater would be generated by the proposed project. If dewatering is necessary in areas where groundwater is encountered, depending on surface and groundwater levels at the time of construction, a permit for discharge of extracted groundwater would be obtained from the RWQCB (see Mitigation Measure HYDRO-4 above). This discharge shall be consistent with RWQCB requirements and as such would not result in a violation of water quality standards or waste discharge requirements. Implementation of Mitigation Measure HYDRO-4 would reduce potential impacts to a less than significant level.

- b) *Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

**Less than Significant Impact.** The proposed project would not require water or wastewater treatment as no potable water and/or toilets would be provided as part of trail construction. Additional water may be needed for irrigation of proposed landscaping. However, such an increase in water demand would be minimal and would not require the construction of new

wastewater treatment facilities or expansion of existing facilities. Therefore, this impact is considered less than significant.

- c) *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?*

**Potentially Significant Unless Mitigation Incorporated.** Existing storm drain facilities and utilities would be maintained as part of the proposed project. Construction of the proposed project would require excavation and de-watering activities in association with the realignment and restoration of Baxter Creek. As described in Response XVII(a) above, dewatering would be conducted in compliance with RWQCB requirements. Mitigation Measure HYDRO-4 would ensure a less-than-significant impact associated with dewatering of Baxter Creek.

- d) *Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?*

**No Impact.** See XVI(b), above.

- e) *Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*

**No Impact.** See XVI(a), above.

- f) *Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?*

**Less Than Significant Impact.** Operation of the proposed project would not generate solid waste. Construction of the proposed project would generate construction waste. However, the amount of construction waste would not be substantial and would not result in a substantial reduction in the capacity of a landfill.

- g) *Comply with federal, State, and local statutes and regulations related to solid waste?*

**No Impact.** The project would comply with all federal, State, and local statutes and regulations related to solid waste.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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**XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.**

- |  |                          |                                     |                                     |                          |
|--|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
| <p>a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?</p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| <p>b) Does the project have impacts that are individually limited, but cumulatively considerable? (Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)</p>   | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <p>c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?</p>   | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
- a) *Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?*

**Potentially Significant Unless Mitigation Incorporated.** Implementation of the mitigation measures recommended in this Initial Study would ensure that the construction and operation of the proposed project would not substantially degrade the quality of the environment; reduce the habitat, population, or range of a plant or animal species; or eliminate important examples of California history or prehistory. Section IV, Biological Resources, includes mitigation measures to minimize impacts to Baxter Creek and nesting birds. Mitigation is provided in Section V, Cultural Resources, in the event that unanticipated archeological or paleontological resources and/or human remains are identified in the project area during construction.

- b) *Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)*

**Less Than Significant Impact.** The impacts of the proposed project are individually limited and not cumulatively considerable. The City of Richmond proposes to construct a new multi-

use trail to connect existing segments of the Richmond Greenway with the Ohlone Greenway in the City of El Cerrito. All environmental impacts that could occur as a result of the proposed project would be reduced to a less than significant level through implementation of the mitigation measures recommended in this Initial Study and, when viewed in conjunction with other closely related past, present or reasonably foreseeable future projects, would not be significant.

- c) *Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?*

**Potentially Significant Unless Mitigation Incorporated.** As described in this Initial Study, the implementation of the proposed project could result in temporary air quality, greenhouse gas, hazardous materials, and noise impacts during the construction period. Implementation of the mitigation measures recommended in this Initial Study would ensure that the proposed project would not result in environmental effects that would cause substantial adverse effects on human beings.

## REPORT PREPARERS AND REFERENCES

### A. REPORT PREPARERS

#### LSA Associates, Inc.

157 Park Place  
Point Richmond, CA 94801

Laura Lafler, Principal, Senior Environmental Planner  
Shanna Guiler, AICP, Senior Planner  
Megan Heileman, Assistant Planner  
Tim Lacy, Associate Wildlife Biologist  
Matt Ricketts, Senior Biologist  
Alex Merritt Greenwald, Archaeologist/Cultural Resources Analyst

### B. REFERENCES

A-N West, Inc., 2010. Hydraulics Report Ohlone Greenway Gap Closure. April 12.

Association of Bay Area Governments (ABAG), 1995. Dam Inundation Map. Available online at: <http://www.abag.ca.gov/cgi-bin/pickdamx.pl>, (accessed 11 November, 2010).

Association of Bay Area Governments (ABAG), 2010. Hazard Maps: Liquefaction Susceptibility, Wildfire Threat, and FEMA Flood Zones. Available online at: <http://www.abag.ca.gov/bayarea/eqmaps/>, (accessed 11 November, 2010).

Bay Area Air Quality Management District (BAAQMD), 2005. Bay Area Ozone Strategy. Available online at: <http://www.baaqmd.gov/pln/plans/index.htm>, (accessed 28 January, 2010).

California Air Resources Board (CARB), 2008. *Climate Change Scoping Plan: a framework for change*. December.

California Department of Conservation, Division of Land Resource Protection, 2008. Farmland Mapping and Monitoring Program: Solano County Important Farmland. Available online at: <ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2008/>, (accessed 20, April, 2010).

California Department of Conservation, Division of Land Resource Protection, 2007. Williamson Act Program- Basic Contract Provisions: Public Acquisitions. Available online at: [http://www.conservation.ca.gov/dlrp/lca/basic\\_contract\\_provisions/Pages/public\\_acquisitions.aspx](http://www.conservation.ca.gov/dlrp/lca/basic_contract_provisions/Pages/public_acquisitions.aspx) (accessed 20 April, 2010).

- California Department of Fish and Game. 2010. California Natural Diversity Database (CNDDDB), commercial version dated October 31, 2010. Biogeographic Data Branch, California Department of Fish and Game, Sacramento.
- California Department of Toxic Substances Control, EnviroStor program, 2007. Available online at: [http://www.envirostor.dtsc.ca.gov/public/profile\\_report.asp?global\\_id=70000104](http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=70000104) (accessed 2 May 2011).
- California Department of Transportation (Caltrans), California Scenic Highway Program, 2007. Available online at: [http://www.dot.ca.gov/hq/LandArch/scenic\\_highways/index.htm](http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm) (accessed 9 November, 2010).
- California Native Plant Society (CNPS). 2010. Inventory of rare and endangered plants of California (online edition, v7-10d). California Native Plant Society, Sacramento.  
<<http://www.cnps.org/inventory>>
- City of Richmond, 1994. City of Richmond General Plan Volume 1. Available online at: <http://www.ci.richmond.ca.us/documentcenterii.aspx> (Accessed 2 November 2010).
- City of Richmond, 1994. City of Richmond General Plan Volume 2. Available online at: <http://www.ci.richmond.ca.us/documentcenterii.aspx> (Accessed 2 November 2010).
- City of Richmond, 2011. Richmond General Plan 2030, Public Review Draft - February 2011. Available online at: <http://www.cityofrichmondgeneralplan.org/docs.php?ogid=1000000623> (Accessed 3 May 2011).
- Environmental Science Associates, Inc., 1993. City of Richmond General Plan and Zoning Ordinance Updates Program Environmental Impact Report. Prepared for the City of Richmond. 17 August. Available online at: <http://www.ci.richmond.ca.us/DocumentView.aspx?DID=5570>. (Accessed 4 November 2010).
- Federal Emergency Management Agency, 2009. National Flood Insurance Program, Flood Insurance Rate Map, Contra Costa County (Panel 240 of 602). 16 June. Available online at: <http://msc.fema.gov/webapp/wcs/stores/servlet/MapSearchResult?storeId=10001&catalogId=10001&langId=-1&userType=G&panelIDs=06013C0240F&Type=pbp&nonprinted=&unmapped=> (Accessed 2 May 2011).
- Fehr & Peers, 2011. City of Richmond Bicycle Master Plan. Prepared for the City of Richmond. February. Available online at: <http://www.ci.richmond.ca.us/DocumentView.aspx?DID=6974> (Accessed 3 May 2011).
- Geotecnia Consulting Geotechnical Engineers, 2010. Draft Report Geotechnical Study, Proposed Bridge Over Baxter Creek, Richmond-Ohlone Greenway Gap Closure Project, Richmond, California. Prepared for Fehr & Peers. 23 August.

Local Government Commission, 2011. City of Richmond Pedestrian Plan. Prepared for the City of Richmond. February. Available online at:  
<http://www.ci.richmond.ca.us/DocumentView.aspx?DID=6504> (Accessed 3 May 2011).

LSA Associates, Inc. (LSA). 2010a. Request for Verification of Jurisdictional Determination for the Richmond-Ohlone Greenway Gap Closure Project in the Cities of Richmond and El Cerrito, Contra Costa County, California. Submitted to U.S. Army Corps of Engineers, San Francisco, California. July 19.

LSA Associates, Inc., 2010b. Cultural and Paleontological Resources Study Richmond-Ohlone Greenway Gap Closure Project, Richmond and El Cerrito, Contra Costa County, California (LSA Project #FPT0901). Prepared for the City of Richmond. 24 June.

State Water Resources Control Board, 2010. Geotracker. Available online at:  
<http://geotracker.swrcb.ca.gov/>, (accessed 24 April, 2010).