CEQA Initial Study - Environmental Checklist Form
(Based on the State CEQA Guidelines, Appendix G Rev. 03/18/2010)

1. Title; Project Number(s); Environmental Log Number: Widening and Pavement Rehabilitation for 3rd Street, 5th Street, Victoria Avenue, Central Avenue, and Palm Avenue in the City of Highland

2. Lead agency name and address:
   City of Highland
   27215 Base Line
   Highland, CA 93246

3. Contact: Dennis D. Barton, Assistant Public Works Director
   Phone number: (909) 864-6861
   E-mail: www.ci.highland.ca.us

4. Project location:
   The project is located in the City of Highland, in the County of San Bernardino, California. Figure 1, Regional and Vicinity Map, shows the regional location of the City of Highland and the project area. The project limits include: 5th St. from Victoria Ave. to Palm Ave., 5th St. from Church Ave. to just East of SR-30, 3rd St. from Palm Ave to 5th/Church Ave., Victoria Ave. from 3rd St. to 9th St., Central Ave. from 3rd St. to 5th St., and Palm Ave. from 3rd St. to 5th St.

5. Project Applicant name and address:
   City of Highland
   27215 Base Line
   Highland, CA 92346

6. General Plan Designation
   Community Plan: N/A
   Land Use Designation: Business Park, Industrial, Open Space, Public/Institutional, Single Family Residential, Planned Development
   Density: Low Density 2.1-6.0 du per acre
7. Zoning
   Minimum Lot Size: N/A
   Special Area Regulation: N/A

8. Description of project:

The project consists of road and drainage improvements within the City of Highland. The length of the roadway improvements total 2.4 miles. The construction improvements will include:

1. Existing pavement reconstruction/rehabilitation.
2. Roadway widening for the following streets to provide the widths as shown:
   a. 5th Street (Victoria to Palm) – 80‘ curb to curb-104’ right-of-way with an on-street bike lane
   b. 5th Street (Church to SR-210) – 88‘ curb to curb- 104’ right-of-way, 114‘ curb to curb under SR-210 with an on street bike lanes
   c. 3rd Street (Palm to 5th/Church intersection) – 64‘ curb to curb within 88’ right-of-way
   d. Victoria Avenue (3rd to 9th) – 80‘ curb to curb – 104’ right-of-way
   e. Central Avenue (3rd to 5th) – 44‘ curb to curb – 66 ‘ right-of-way
   f. Palm Avenue (3rd to 5th) – 80‘ curb to curb – 104’ right-of-way
   g. Adjusting the southbound SR-210 on and off ramp profiles and widening the ramps to account for improvements on 5th
3. New curb and gutter at edge of pavement.
4. New sidewalks where adjacent property is developed and no sidewalks exist.
5. Street lighting where adjacent property is developed and no street lighting exists.
6. Signage and striping including turn pockets where required.
8. Crossing Improvements at 5th Street and City Creek Channel.
9. Roadway Drainage System to include a storm drain system along Victoria (3rd to 9th) and 5th (from City Creek Channel to Palm Avenue, extending in Palm Avenue to 3rd Street, extending east in 3rd Street for approximately 500 feet), including regrading of the existing City Creek Bypass Channel for 1,200 feet west of Victoria Avenue. **Data Gap: We need more information on the City Creek Overflow dredging and excavating. We need to know size of work area (length in feet or acres), amount of excavation and dredging.**
10. Retaining/tie back walls under the SR-210 to accommodate a curb to curb width of 114‘.
Figure 2 illustrates the proposed roadway and drainage improvements. The purpose of the roadway expansions is to promote the 5th Street Corridor as a major industrial entryway into the San Bernardino International Airport as identified in the Highland General Plan. Additionally, Victoria Avenue has been identified as the primary passenger entryway into the airport. These corridors are needed to establish the area from future commercial and future development opportunities along Victoria Avenue. A major business park at the southern terminus of Victoria Avenue is identified to increase employment opportunities in the area. The San Bernardino International Airport Authority (SBIAA) and the Inland Valley Development Agency (IVDA) serve as master developers on the San Bernardino International Trade Center and Airport, of which 5th Street and Victoria Avenue will serve as roadways to the area.

The site is subject to the following General Plan Regional Categories: Land Use Designation: Business Park, Industrial, Open Space, Public/Institutional, Single Family Residential, and Planned Development. Zoning for the site is (R-1) Single Family Residential, (PD) Planned Development, (BP) Business Park, (I) Industrial, (OS) Open Space, and (P/Q) Public/Quasi Public. The project would be served by East Valley Water District for water and wastewater services. Earthwork will consist of cuts and fills of less than 5000 cubic yards of material. The project will be implemented in phases, with roadway and drainage improvements west of SR-210 including southbound ramp improvements occurring in the first phase, roadway widening and wall construction under the freeway, occurring in the second phase.

9. Surrounding land uses and setting:

The proposed project is located in an urbanized area of the City of Highland. Lands surrounding the project site are used for urban developed including commercial, industrial, non-conforming residential and open space. The topography of the project site and adjacent land is relatively flat with an elevation ranging from 1,047 to 1,134 feet above mean sea level. The western portion of the roadway improvement is located adjacent Highway I-210 (formally SR-30).

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

<table>
<thead>
<tr>
<th>Permit Type/Action</th>
<th>Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Permit</td>
<td>City of Highland</td>
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<td>Construction Permit</td>
<td>City of San Bernardino</td>
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<tr>
<td>Construction Permit</td>
<td>Inland Valley Development Agency (IVDA)</td>
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<tr>
<td>State Highway Encroachment Permit</td>
<td>CalTrans</td>
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<tr>
<td>401 Permit - Water Quality Certification</td>
<td>Regional Water Quality Control Board (RWQCB)</td>
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<tr>
<td>404 Permit – Dredge and Fill</td>
<td>US Army Corps of Engineers (ACOE)</td>
</tr>
<tr>
<td>1602 – Streambed Alteration Agreement</td>
<td>CA Department of Fish and Game (CDFG)</td>
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</tbody>
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Comment [h2]: Same as below To be finalized after wetland delineation
### Permit Type/Action | Agency
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Section 7 - Consultation or Section 10a Permit – Incidental Take | US Fish and Wildlife Services (USFWS)
Air Quality Permit to Construct (Rule 201) | South Coast Air Quality Management District (SCAQMD)
National Pollutant Discharge Elimination System (NPDES) Permit | Regional Water Quality Control Board (RWQCB)

**ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:** The environmental factors checked below would be potentially affected by this project and involve at least one impact that is a “Potentially Significant Impact” or a “Less Than Significant With Mitigation Incorporated,” as indicated by the checklist on the following pages.

- [ ] Aesthetics
- [✗] Biological Resources
- [✓] Greenhouse Gas Emissions
- [ ] Land Use & Planning
- [ ] Population & Housing
- [ ] Utilities & Service Systems
- [ ] Agricultural Resources
- [✓] Cultural Resources
- [✓] Hazards & Haz. Materials
- [ ] Mineral Resources
- [ ] Public Services
- [ ] Mandatory Findings of Significance
- [✓] Air Quality
- [ ] Geology & Soils
- [ ] Hydrology & Water Quality
- [ ] Noise
- [ ] Recreation

**DETERMINATION:** (To be completed by the Lead Agency)

- [ ] On the basis of this Initial Study, the Department of Planning and Land Use finds that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

- [✓] On the basis of this Initial Study, the Department of Planning and Land Use finds 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.

- [ ] On the basis of this Initial Study, the Department of Planning and Land Use finds that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

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**Comment [h3]:** To be finalized after biological studies completed.

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**Signature**

Dennis Barton

**Printed Name**

Assistant Public Works Director

**Title**
INSTRUCTIONS ON EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole 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.

3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, Less Than Significant With Mitigation Incorporated, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.

4. “Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
   a) Earlier Analysis Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c) Mitigation Measures. For effects that are “Less Than Significant With Mitigation Incorporated,” describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. The explanation of each issue should identify:
   a) The significance criteria or threshold, if any, used to evaluate each question; and
   b) The mitigation measure identified, if any, to reduce the impact to less than significance
I. AESTHETICS -- Would the project:

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

☐ Potentially Significant Impact  ☐ Less than Significant Impact
☐ Less Than Significant With Mitigation  ☑ No Impact

No Impact: A vista is a view from a particular location or composite views along a roadway or trail. Scenic vistas often refer to views of natural lands. However, they may also be compositions of natural and developed areas, or developed and unnatural areas, such as a scenic vista of a rural town and surrounding agricultural lands. What is scenic to one person may not be scenic to another, so the assessment of what constitutes a scenic vista must consider the perceptions of a variety of viewer groups.

The items that can be seen within a vista are visual resources. Adverse impacts to individual visual resources or the addition of structures or developed areas may or may not adversely affect the vista. Determining the level of impact to a scenic vista requires analyzing the changes to the vista as a whole and also to individual visual resources.

The project site is located in an urbanized section of the city and does not propose construction of buildings. Based on a site visit by HDR staff on July 8, 2009 the construction of existing roadway infrastructure, curbs, sidewalks, and storm drainage systems will not have a permanent impact on scenic vistas, or change the composition of an existing scenic vista in a way that would adversely alter the visual quality or character of the view. Any impacts due to construction would be temporary. Therefore, the proposed project will not have an adverse effect on a scenic vista. No impact is identified for this issue area.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcropping, and historic buildings within a state scenic highway?

☐ Potentially Significant Impact  ☐ Less than Significant Impact
☐ Less Than Significant With Mitigation  ☑ No Impact

No Impact: State scenic highways refer to those highways that are officially designated by the California Department of Transportation (Caltrans) as scenic (Caltrans - California Scenic Highway Program). Generally, the area defined within a State scenic highway is the land adjacent to and visible from the vehicular right-of-way. The dimension of a scenic highway is usually identified using a motorist’s line of vision, but a reasonable boundary is selected when the view extends to the distant horizon. The scenic highway corridor extends to the visual limits of the landscape abutting the scenic highway.
Based on a site visit completed by HDR staff on July 8, 2009 the proposed project is not located near or visible within the composite viewshed of a State scenic highway and will not damage or remove visual resources within a State scenic highway. The project site is located adjacent to Interstate 210 (formerly State Route 30). The process to add State Route 30 (SR-30) to Interstate 210 (I-210) began in 1998, when the designation was legislatively changed to California 210 (AB2388). The American Association of State Highway and Transportation Officials (AASHTO) changed the designation at the completion of the construction at the end of 2007. Neither the I-210 nor the previously designated SR-30 is listed in the State’s Officially Designated Scenic Highway Program.

Because of their importance as community resources, Palm Avenue and Church Street are designated as Scenic Highways in the Highland General Plan. Goal 3.3, Policy 1, ensures establishing guidelines that protect the visual resources in the community to allow for the development of additional recreational opportunities. The project construction will be temporary and will not permanently change the visual character of the area. Therefore, no impacts are identified for this issue area.

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

- Potentially Significant Impact
- Less Than Significant With Mitigation Incorporated  
- Less than Significant Impact
- No Impact

**Less Than Significant Impact:** Visual character is the objective composition of the visible landscape within a viewshed and is commonly discussed in terms of dominance, scale, diversity and continuity. Visual quality is the viewer’s perception of the visual environment and varies based on exposure, sensitivity and expectation of the viewers. The views and vistas are an asset to the City of Highland and contribute to its rural, natural character. The City does not regulate private views, but stresses the importance of view corridor planning in both public and private development to preserve views of the San Bernardino Mountains and stretches of open space along City Creek and the Santa Ana River. The existing visual character and quality of the project site and surrounding can be characterized as developed and disturbed open space. The project will not substantially degrade the existing visual character or quality of the site and its surrounding; although the existing visual character will be; although the existing visual character will be somewhat altered. Therefore, impacts due to this issue area are 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?

- Potentially Significant Impact
- Less Than Significant With Mitigation Incorporated
- Less than Significant Impact
- No Impact
No Impact: The project does not propose the use of outdoor lighting or building materials with highly reflective properties such as highly reflective glass or high-gloss surface colors. Temporary lighting will be required to ensure public safety. Temporary parking may be required to accommodate area businesses during the roadway construction. Any temporary parking will be required to be in accordance with the City Ordinance, of parking areas of five or more spaces shall have an average of one-half foot-candle of illumination per square foot of parking area for visibility and security during hours of darkness. Lighting for non-residential uses is not to exceed one-half-foot candles of illumination beyond the property and shall not blink. Therefore, the project will not create any permanent new sources of light pollution that could contribute to skyglow, light trespass or glare and adversely affect day or nighttime views in area.

II. AGRICULTURAL AND FORESTRY RESOURCES — Would the project:

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

☐ Potentially Significant Impact ☐ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated ✓ No Impact

No Impact: The City of Highland was once devoted to agriculture, primarily citrus production. The City general plan estimates there is 1,000 acres as Agriculture/Equestrian uses in the eastern part of the City. The project site is identified as urban/built-up and does not contain any agricultural resources, lands designated as Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the Division California Department of Resources. No impact is identified for this issue area.

No agricultural resources including Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance will be converted to a non-agricultural use.

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

☐ Potentially Significant Impact ☐ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated ✓ No Impact

No Impact: The project site is zoned (R-1) Single Family Residential, (PD) Planned Development, (BP) Business Park, (I) Industrial, (OS) Open Space, (P/Q) Public/Quasi Public, which are not considered to be an agricultural zone. Additionally, the project site’s land is not under a Williamson Act Contract.
The proposed project does not conflict with existing zoning for agricultural use or with a Williamson Act Contract. No impact is identified for this issue area.

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

☐ Potentially Significant Impact ☐ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated ☑ No Impact

**No Impact:** The project site is zoned (R-1) Single Family Residential, (PD) Planned Development, (BP) Business Park, (I) Industrial, (OS) Open Space, (P/Q) Public/Quasi Public, which are not considered to be an agricultural zone.

The proposed project consists of roadway improvements within the existing right-of-ways. The project does not conflict with existing zoning or result in the rezoning of land designated as timberland or timberland production. No impact is identified for this issue area.

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

☐ Potentially Significant Impact ☐ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated ☑ No Impact

**No Impact:** The proposed project is not located in a forested area. Implementation of the project would not result in the conversion of forest land to urban or non-forest use. No impact is identified for this issue area.

The project would not convert forested land to urban uses.

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

☐ Potentially Significant Impact ☐ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated ☑ No Impact

**No Impact:** The project site and surrounding area are within a radius of approximately three miles that does not contain any active agricultural operations or lands designated as Prime Farmland, Unique Farmland, or Farmland of Statewide or Local Importance.
No forest land, Prime Farmland, Unique Farmland, Farmland of Statewide or Local Importance, or active agricultural operations will be converted to a non-agricultural use. No impact is identified for this issue area.

III. AIR QUALITY -- 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 San Bernardino Regional Air Quality Strategy (RAQS) or applicable portions of the State Implementation Plan (SIP)?

☐ Potentially Significant Impact ☑ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated ☐ No Impact

Less Than Significant Impact:

The project is located in San Bernardino County, which is part of the South Coast Basin within the jurisdiction of the South Coast Air Quality Management District (SCAQMD); included in the jurisdiction are San Bernardino, Riverside, Orange and portions of Los Angeles County. The Basin is formed by the San Bernardino, San Jacinto and San Gabriel Mountains to the north and east and the Pacific Ocean as the western boundary. The climate of the area has high concentrations of stationary sources of air contaminants, and the surrounding mountains contribute to poor air quality in the region. Air pollution levels are monitored by SCAQMD through the Air Quality Management Plan (AQMP).

The project does not include development which would increase operational emissions to the area. The proposed project will result in temporary construction emissions associated with excavation, grading and paving activities.

Because the proposed project is a transportation project, the AQMP consistency with the project is determined according to the Southern California Association of Governments, 2008 Regional Transportation Plan. The project area is identified in the Airport Ground Access Element as a recommended improvement project which is consistent to keep congestion within acceptable levels of service. Planned ground access improvements in the RTP include widening of 5th Street from Tippecanoe to Palm, and improvements to the shoulder on Victoria from 3rd to 9th Streets. Because the project is identified in the current AQMP, the project would be considered consistent with the AQMP. Therefore, the short-term construction related air pollutant emissions are considered less than significant.
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

☐ Potentially Significant Impact  ☑ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated  ☐ No Impact

**Less Than Significant With Mitigation Incorporated:** The project does not include any components that would result in operational emissions; therefore an air quality assessment was not prepared for the project. However, the project is required to comply with reducing short-term air emissions to comply with regional rules (Rule 201 and Rule 2202). In general, air quality impacts from roadway improvement projects are the result of emissions from workers' motor vehicles, and from short-term construction activities associated with such projects. Currently the South Coast Air Basin for San Bernardino County is designated as non-attainment for ozone, PM_{10}, nitrogen dioxide, and PM_{2.5}. The current state and federal attainment designations are listed in Table 1.

**Table 1. Current Attainment Designations South Coast Air Basin**

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<thead>
<tr>
<th>Pollutant</th>
<th>Exposure</th>
<th>State</th>
<th>Federal</th>
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</thead>
<tbody>
<tr>
<td>Ozone (O₃)</td>
<td>1-Hour</td>
<td>Non-attainment</td>
<td>No state standard</td>
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<tr>
<td></td>
<td>8-Hour</td>
<td>Non-attainment</td>
<td>Severe 17</td>
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<tr>
<td>Carbon Monoxide (CO)</td>
<td>8-Hour</td>
<td>Attainment</td>
<td>Attainment</td>
</tr>
<tr>
<td>Nitrogen Dioxide (NO₂)</td>
<td>1-Hour or Annual</td>
<td>Non-attainment</td>
<td>Attainment</td>
</tr>
<tr>
<td>Particulate Matter (PM_{10})</td>
<td>Annual</td>
<td>Non-attainment</td>
<td>Moderate Non-attainment</td>
</tr>
<tr>
<td>Particulate Matter (PM_{2.5})</td>
<td>Annual</td>
<td>Non-attainment</td>
<td>Non-attainment</td>
</tr>
</tbody>
</table>

Source: CARB: [http://www.arb.ca.gov/desig/changes.htm#reports](http://www.arb.ca.gov/desig/changes.htm#reports) (update March 29, 2010) and EPA: [http://www.epa.gov/air/oao/greenbkg/ancl.html#CALIFORNIA](http://www.epa.gov/air/oao/greenbkg/ancl.html#CALIFORNIA) (updated January 6, 2010)

Note: *In 2007, the Air Resources Board lowered the 1-hour NO₂ standard from 0.25 parts per million (ppm) to 0.18 ppm and established a new annual standard of 0.030 ppm. Based on data for 2006-2008, the South Coast Air Basin violates the State annual NO₂ standard.

The AQMP provides air quality significance thresholds for both construction and operational emissions, as shown in Table 2.

The proposed project would result in a temporary increase in criteria pollutant emissions associated with the construction activities. As shown in Table 2, the air basin is in non-attainment for all except carbon monoxide. Per SCAQMD guidelines, during construction activity, if a daily emission threshold is exceeded regardless of quarterly emissions levels, the project is determined to have a significant air quality impact. Therefore, a conservative approach is to evaluate construction emissions based on daily emissions rather than quarterly emissions.

**Table 2 - SCAQMD Air Quality Significance Thresholds**
The project is anticipated to be completed in phases over a period of 18 months. The anticipated amount of earthwork is not expected to exceed 5,000 cubic yards over the course of the construction. The project is will not to exceed the SCAQMD significance thresholds since the size of the daily construction area is not expected to exceed 2 acres per day.

Temporary construction impacts will increase the amount of criteria pollutants in an area designated as non-attainment. The SCAQMD identifies measures for construction related activities in their CEQA Analysis Handbook (currently being updated). Due to the
minimal level of earthwork required and standard pollutant emission reduction measures (SCAQMD Rules 201 and 2202).

The following typical air pollutant reduction measures shall be included in the construction permit language to ensure a reduction in PM$_{10}$, PM$_{2.5}$, and NO$_2$ emissions during construction activities:

a. Use a gravel apron, 25 feet long by road width, to reduce mud/dirt trackout from unpaved truck exit routes.

b. Water exposed surfaces and unpaved haul routes at least three times daily.

c. Require minimum soil moisture of 12 percent for earthmoving by use of a moveable sprinkler system or a water truck. Moisture content can be verified by lab sample or moisture probe.

d. Limit on-site vehicle speeds (on unpaved roads) to 15 mph by radar enforcement.

e. Limit lane closures to off-peak travel periods.

f. Replace ground cover in disturbed areas as quickly as possible.

g. All trucks hauling dirt, sand, soil, or other loose materials are to be tarped with a fabric cover and maintain a freeboard height of 12 inches.

h. Retrofit all heavy duty diesel engines on models 2006 or older with a diesel particulate filter or diesel oxidation catalyst depending on make and model of equipment (see Table IV - Mitigation Measures: Level 1, 2 & 3 Retrofits for On-road Engines in SCAQMD CEQA Guidelines Handbook)

i. Construction equipment shall be shut off when not in use.

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 Impact
- [ ] Less than Significant Impact
- [ ] Less Than Significant With Mitigation Incorporated
- [x] No Impact

**Less Than Significant:** The proposed project does not include any development that would result in long term operational impacts with regards to criteria pollutants. The project will result in temporary construction impacts associated with excavation, grading and paving activities. The proposed project is included in the 2008 Regional Transportation Plan, Airport Ground Access Element as a recommended improvement project which is consistent to keep congestion within acceptable levels of service. Because the project is identified in the current AQMP, the project would be considered consistent with the AQMP. The proposed project would not result in cumulative impacts within the air basin. In addition, temporary construction pollutant emissions are addressed through SCAQMD’s standard pollutant emission reduction measures (Rules 201 and 2202).
d) Expose sensitive receptors to substantial pollutant concentrations?

☐ Potentially Significant Impact  ☐ Less than Significant Impact
☑ Less Than Significant With Mitigation Incorporated  ☐ No Impact

**Less Than Significant With Mitigation Incorporated:** Air quality regulators typically define sensitive receptors as schools (Preschool-12th Grade), hospitals, resident care facilities, or day-care centers, or other facilities that may house individuals with health conditions that would be adversely impacted by changes in air quality. The nearest sensitive receptors are located within a quarter-mile; Highland Sam J. Racadio Library located on Central Avenue, and the Head Start Program building located on 5th Street and Central Avenue. The library does not have outdoor recreation, but the Head Start Program would require that the project to limit emissions generated in the general vicinity of the 5th Street and Central Avenue. The Head Start program provides health, nutritional, and social services to children. Construction activities would expose sensitive receptors to temporary emissions of particulate matter and other criteria pollutants associated with the movement of earth. In addition to implementation of the standard pollutant reduction measures required by SCAQMD, Mitigation Measure AQ-1 shall be implemented to ensure impacts to sensitive receptors are reduced to a less than significant.

**Mitigation Measure AQ-1.** The following measures shall be included in construction permit language to ensure a reduction in exposure of sensitive receptors to construction related emissions.

a. Post a publicly visible signs which specifies the telephone number and person to contact regarding dust complaints. This person shall respond to complaints and take corrective action within 48 hours. The phone number of the South Coast Air Quality Management District shall be visible to ensure compliance with Rule 2202.

b. Limit the area under construction at any one time.

c. Limit the quantity of equipment used at one time.

d. Limit the type of equipment used.

e. Limit the number of hours of operation per day.

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

☐ Potentially Significant Impact  ☑ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated  ☐ No Impact

**Less Than Significant Impact:** The project could produce objectionable odors due to construction equipment, vehicle emissions, and asphalt paving. Odors associated with the project would be considered temporary and would not cause a significant impact to
the area. No significant air quality impacts associated with objectionable odors are expected to affect surrounding receptors. Moreover, the affects of objectionable odors are localized to the immediate surrounding area and will not contribute to a cumulatively considerable odor.

**IV. BIOLOGICAL RESOURCES** -- 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?

- Potentially Significant Impact
- Less Than Significant Impact
- Less Than Significant With Mitigation Incorporated
- No Impact

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 US Fish and Wildlife Service?

- Potentially Significant Impact
- Less than Significant Impact
- Less Than Significant With Mitigation Incorporated
- No Impact

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

- Potentially Significant Impact
- Less than Significant Impact
- Less Than Significant With Mitigation Incorporated
- No Impact

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?

- Potentially Significant Impact
- Less than Significant Impact
- Less Than Significant With Mitigation Incorporated
- No Impact
e) Conflict with the provisions of any adopted Habitat Conservation Plan, Natural Communities Conservation Plan, other approved local, regional or state habitat conservation plan or any other local policies or ordinances that protect biological resources?

☐ Potentially Significant Impact  ☐ Less than Significant Impact
☐ Less Than Significant With Mitigation  ☐ No Impact

V. CULTURAL RESOURCES -- Would the project:

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

☐ Potentially Significant Impact  ☐ Less than Significant Impact
☐ Less Than Significant With Mitigation  ☑ No Impact

No Impact: PCR Services Corporation Prepared a Phase I Archaeological and Paleontological Resources Assessment and Historic Resources Assessment for the proposed project area. The report is included as Appendix A. A cultural resource records search was conducted by PCR on August 26, 2009 through the CHRIS-SBAIC at San Bernardino County Museum. The records search included a review of all recorded historical resources within one-half mile radius of the project area. In addition, PCR requested the review of the California Points of Historical Interest (CPHI), the California Historical Landmarks (CHL), the California Register, the National Register, and the California State Historic Resources Inventory listings (HRI).

Results of the records search indicated that there was one existing historical resource outside of the proposed project area, but within a half-mile radius of the study area. Three properties outside of the proposed project area, but within a half-mile radius of the study area were determined not eligible for listing or designation. In addition, just outside the survey area at 27136 3rd Street, PCR identified a rare extant two-story American Colonial Revival residence with high integrity associated with the agricultural-era of the City of Highland. The residence appears to meet the eligibility thresholds for designation as a historical resource at the federal, state, and local level. Located outside the study area, the residence at 27136 3rd Street is not indirectly impacted by the proposed project. Therefore, the proposed project will not have an impact to potentially significant historical resources.

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

☐ Potentially Significant Impact  ☐ Less than Significant Impact
☑ Less Than Significant With Mitigation  ☐ No Impact
Less Than Significant Impact with Mitigation Incorporated: According to Figure 5-2 of the City of Highland General Plan, a portion of the project site along between 3rd and 5th Streets east of Victoria Ave to U.S. Highway 210 is identified as an archeologically sensitive area. The records search mentioned previously included a review of all recorded archaeological sites within one-half mile radius of the project area, in addition to the historical sites. Two historic period resources were identified within the project boundaries; P-36-010820 and P-36-006848. P-36-010820 is located along Victoria Avenue along the northeastern portion of the study area and is described as buried and exposed portions of the Arrowhead and Waterman Railroad, which is also known as the Harlem Motor Road Line (Campbell 2002). P-36-006848 crosses multiple areas of the study area along 3rd and 5th Street and is described as the water transportation site known as the Cram-Van Leuven Ditch (Romani 1990). The majority of these resources, with the exception of P-36-010820 and P-36-006848, are located far enough away from the study area and will not be impacted by the proposed project. Although the current condition of these resources is unknown, the result of the records search confirms the presence of past prehistoric and historic occupation within the vicinity of the study area.

On August 27, 2009, PCR cross-trained archaeologists and paleontologists Kyle Garcia and Matthew Gonzalez, conducted a pedestrian survey of the study area using transects intervals totaling 5 to 10 meters (m). In all accessible areas of the study area, the ground surface was examined for archaeological and paleontological resources. PCR surveyed 100 percent of the study area; however, the majority of the study area is heavily disturbed by the construction of single family homes, commercial buildings, asphalt-paved roads, sidewalks, and landscaping.

Results of the cultural resources records search revealed that one prehistoric resource was previously recorded within a one-half mile radius of the study area. Prehistoric archaeological site P-36-002313 is located approximately one-half mile north of the study area and is described as a village site where the Native Americans living in the area were driven off by armed men who wanted to take control of the land (Smith 1938).

The NAHC SLF records search results did not indicate any known Native American cultural resources within the study area. Numerous archaeological surveys have been conducted within the immediate vicinity of the study area (covering approximately 50 percent of the one-half mile radius surrounding the study area) that has yielded positive results. However, the majority of the study area had not been surveyed by an archaeologist prior to PCR’s assessment.

No archaeological resources were identified during PCR’s pedestrian survey of the study area. Given the heavily disturbed context of the study area and the nature of the proposed project, it is unlikely that implementation of the proposed project will impact previously unknown archaeological resources. Any unknown archaeological resources that may have existed prior to the disturbances are likely to have been displaced. However, as mentioned above, a few small areas of the study area contain known buried resources associated with P-36-010820 and P-36-006848 and may be impacted during the implementation of the proposed project. Although unlikely, it is possible the construction of the proposed project could unearth unknown buried resources.
Implementation of Mitigation Measure CR-1 would ensure the proper identification, evaluation and recovery of cultural resources if accidentally encountered during construction. The impact is considered less than significant with implementation of mitigation measure CR-1.

**Mitigation Measure**

**CR-1.** If archaeological resources associated with P-36-010820 and P-36-006848 or other cultural resources are encountered during implementation of the project, ground-disturbing activities should temporarily be redirected from the vicinity of the find. The project proponent shall immediately halt construction activities and notify a qualified archaeologist of the find. The archaeologist shall be allowed to temporarily divert or redirect grading or excavation activities in the vicinity in order to make an evaluation of the find and determine appropriate treatment. Treatment will include the goals of preservation where practicable and public interpretation of historic and archaeological resources. All cultural resources recovered will be documented on California Department of Parks and Recreation Site Forms to be filed with the CHRIS-SBAIC. The archaeologist shall prepare a final report about the find to be filed with the project proponent, lead agency, and the CHRIS-SBAIC, as required by the California Office of Historic Preservation. The report shall include documentation and interpretation of resources recovered. Interpretation shall include full evaluation of the eligibility with respect to the National and California Register of Historic Places and CEQA. The report shall also include all specialists’ reports as appendices. The lead agency shall designate repositories in the event that significant resources are recovered. The archaeologist shall also determine the need for archaeological monitoring for any ground-disturbing activities thereafter.

- [ ] Potentially Significant Impact
- [ ] Less Than Significant With Mitigation Incorporated
- [ ] Less than Significant Impact
- [x] No Impact

**No Impact:** Based on the information provided in the Phase I Archaeological and Paleontological Resources Assessment and Historic Resources Assessment, the site does not contain unique geologic features that would be potentially harmed or destroyed during construction and implementation of the proposed project. No impact is identified for this issue area.

The majority of the project area is heavily disturbed by previous development of single family homes, commercial buildings, asphalt-paved roads, sidewalks, and landscaping. Given the urbanized nature of the area, the site does not contain unique geologic features, which could be harmed or destroyed by construction of the proposed project.
d) Directly or indirectly destroy a unique paleontological resource or site?

- [ ] Potentially Significant Impact
- [ ] Less than Significant Impact
- [✓] Less Than Significant With Mitigation Incorporated
- [ ] No Impact

**No Impact:** On August 18, 2009, PCR commissioned a paleontological resources records search through the San Bernardino County Museum (SBCM). The records search entailed an examination of current geologic maps and known fossil localities inside and within the general vicinity of the study area. The purpose of the record search is to determine whether or not there are previously recorded paleontological resources within the study area that require evaluation. The results also provide a basis for assessing the sensitivity of the study area for additional and buried paleontological resources.

Results of the paleontological resources records search through the SBCM indicates that the study area is situated upon superficial deposits of latest Holocene younger axial-valley alluvium as well as recent wash alluvium. According to the SBCM, these types of deposits do not contain significant nonrenewable paleontological resources. Also, no previously-known paleontological resource localities were found within a one-mile radius of the study area. However, these Holocene sediments may overlie subsurface Pleistocene older alluvium and these can contain significant Pleistocene vertebrate fossils. Shallow earth moving operations in the younger Holocene alluvium within the study area are unlikely to reveal significant vertebrate fossils. On the other hand, deeper excavations that extend into the older Pleistocene deposits may well be expected to encounter significant remains of fossil vertebrates. As a result of these findings, the paleontological sensitivity of the study area is considered to be low. No paleontological resources were identified on the surface during the pedestrian survey and although the results of the records search suggest that they may exist within the study area, it also suggests that they will only be present at great depths. As a result, the proposed project will have no impact to significant paleontological resources and no further work is needed.

e) Disturb any human remains, including those interred outside of formal cemeteries?

- [ ] Potentially Significant Impact
- [✓] Less Than Significant With Mitigation Incorporated
- [ ] Less than Significant Impact
- [ ] No Impact

**Less Than Significant With Mitigation Incorporated:** Based on the record and site assessment conducted by PCR, the project does not include a formal cemetery or any archaeological resources that might contain interred human remains. Prehistoric archaeological site P-36-002313 is located approximately one-half mile north of the study area and is described as a village site where the Native Americans living there were driven off by armed men who wanted the land (Smith 1938). This resource is
located far enough away from the study area and will not be impacted by implementation of the proposed project. Although there is no known record or evidence of any formal cemetery or archaeological resource that might contain interred human remains, there is a possibility unknown buried remains could be unearthed during excavation activities. Implementation of Mitigation Measure CR-2 would reduce potential impacts to cultural artifacts associated with human remains to a less than significant level.

Mitigation Measure

CR-2. If human remains are encountered unexpectedly during construction excavation and grading activities, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the California Native American Heritage Commission (NAHC). The NAHC will then identify the person(s) thought to be the Most Likely Descendent of the deceased Native American, who will then help determine what course of action should be taken in dealing with the remains.

VI. GEOLOGY AND SOILS -- 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.

   - Potentially Significant Impact
   - Less Than Significant Impact
   - Less Than Significant With Mitigation Incorporated
   - No Impact

   Less Than Significant Impact: The City of Highland is identified as a city affected by earthquake fault zones. The City is located in the Harrison Mountain and Redlands Earthquake Fault Zone map. As identified in the city’s general plan, the city is located in an area that is dominated by the San Andreas Fault. Several active and potentially active faults of the San Andreas Fault are present within and nearby Highland. The north and south branches of the fault run through the City. The San Andreas Fault is capable of generating an earthquake magnitude of up to 8.3 on the Richter scale. Located approximately 4.5 miles southwest of Highland, the San Jacinto Fault Zone has a maximum credible earthquake Richter magnitude of 8.5 and has the potential for significant ground shaking within the region. As required by the Alquist-Priolo Earthquake Fault Zoning Act, areas of the San Andreas Fault have been designated as “Earthquake Fault Zones.” Under this act, the state geologist has established and mapped Earthquake Fault Zones, or regulatory zones around the surface traces of
active faults. Figure 6.2 of the City of Highland General Plan identifies the portion of the Alquist-Priolo Earthquake Fault Zone that runs through the eastern portion of the city.

Prior to the approval of structures within the zone, a geologic study must be undertaken to determine the precise location and necessary setbacks from identified faults. The designation of the San Andreas Fault as part of the Alquist-Priolo Earthquake Fault Zone prohibits the construction of most types of habitable structures within 50 feet of the fault.

As shown on Figure 6.2, the project area is greater than 50 feet from the San Andreas Fault System. In addition, the proposed project does not include development of new structures. Implementation of the proposed project would be subject to general plan policies and state regulations for development (the California Building Code) in seismically active areas. The majority of the proposed project is upgrades to existing roadways; therefore the implementation of the proposed project would have a less than significant impact with regards to hazards associated with the San Andreas Fault System effecting people or structures.

ii. Strong seismic ground shaking?

- [ ] Potentially Significant Impact
- [x] Less than Significant Impact
- [ ] Less Than Significant With Mitigation Incorporated
- [ ] No Impact

**Less Than Significant Impact:** As mentioned previously, to ensure the structural integrity of all buildings and structures, the project must conform to the seismic requirements as outlined within the California Building Code.

The proposed project involves the construction of road improvements and hydrological upgrades associated with the roadway improvements. Therefore, compliance with the California Building Code would lessen the impacts the project would have exposing people or structures to potential adverse effects from strong seismic ground shaking. A less than significant impact is identified for this issue area.

iii. Seismic-related ground failure, including liquefaction?

- [ ] Potentially Significant Impact
- [x] Less than Significant Impact
- [ ] Less Than Significant With Mitigation Incorporated
- [ ] No Impact

**Less Than Significant Impact:** Liquefaction is a seismically induced form of ground failure, which has been a major cause of earthquake damage to roads, utility pipelines, buildings and other structures during past earthquakes in Southern California. Loose, granular materials at depths of less than 50 feet with silt and clay contents of less than 30 percent saturated by relatively shallow groundwater table are most susceptible to liquefaction. These geological conditions are typical in parts of Southern California
including Highland, and in valley regions and alluviated floodplains. Liquefaction takes place when granular materials that are saturated by water lose strength and transform from a solid to a liquid state. Figure 6.3 of the general plan shows the areas susceptible to high liquefaction in Highland.

According to the Figure 6.3 of the general plan, the project site is not located within a “Potential Liquefaction Area.” This indicates that the geologic environment of the project site is not susceptible to ground failure from seismic activity. Therefore, there will be less than significant impact from the exposure of people or structures to adverse effects from a known area susceptible to ground failure, including liquefaction.

iv. Landslides?

☐ Potentially Significant Impact  ☑ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated  ☐ No Impact

No Impact: Areas of landslide susceptibility in the City of Highland are shown in Figure 6.3 of the General Plan. Foothills crossed by drainage channels created from local mountain runoff to the north characterize areas in the northeastern portion of Highland. Drainage from the north has cut deep into the surrounding landform creating steep walls susceptible to landslides. Traces of the San Andreas Fault zone add to the threat of landslides due to ground shaking. High fire danger in the local mountain area further adds to the risk of landslide and mudslide. Slopes devoid of suitable vegetation after a natural fire event may not be able to maintain topsoil in times of heavy precipitation.

The project area is located in a developed area and is not within a “Landslide Susceptibility Area” as identified in the city’s general plan. Since the project is not located within an identified Landslide Susceptibility Area and the geologic environment has a low probability to become unstable, the project would have no impact from the exposure of people or structures to potential adverse effects from landslides.

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

☐ Potentially Significant Impact  ☑ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated  ☐ No Impact

Less Than Significant Impact: According to the United States Department of Agriculture, Natural Resources Conservation Service, the project area is located in the San Bernardino County Southwestern Part (CA677) map unit. The project area is identified as containing:

- Psamments and Fluvents, frequently flooded- This soil type is sandy in all layers, and is subject to soil blowing and drifting.
• Soboba Stony Loamy Sand, 2 to 15 percent slopes (SsD) - This soil occurs on talus slopes and alluvial fans. Permeability of this soil is very rapid, with slow runoff and a slight hazard of erosion. The available water holding capacity is 2.5 to 3.5 inches, with low natural fertility.

• Tujunga Gravelly Loamy Sand, 0 to 9 percent slopes (TvC) - Consists of excessively drained soils on alluvial fans and flood plains. Developed from predominantly granitic materials. Permeability of this soil is rapid, and the water holding capacity is 2.0 to 5.0 inches, with very slow runoff. Hazard of erosion by wind is high, and natural fertility is low.

According to Figure 6.1 of the general plan, the soils within the project area are identified as alluvial fan deposits (QF) and younger alluvium undifferentiated. The area has a soil erodibility rating of “low” as indicated by the Soil Survey for the San Bernardino Area (US Department of Agriculture, Soil Conservation and Forest Service, Version 4, January 3, 2008).

Although the project site soils have a low runoff or erosion potential, the proposed project would require the excavation and movement of on-site soils, which could result in runoff or erosion issues. However, construction projects resulting in the disturbance of 1.0 acre or more are required to obtain a National Pollutant Discharge Elimination System (NPDES) permit issued by the Regional Water Quality Control Board (RWQCB). The project’s construction contractor would be required to prepare a Storm Water Pollution Prevention Plan (SWPPP) that identifies Best Management Practices (BMPs) to limit the soil erosion during project construction. Adherence during construction to provisions of the NPDES permit and applicable BMPs contained in the SWPPP would ensure that potential impacts related to this issue are less than significant.

c) Will the project produce unstable geological conditions that will result in adverse impacts resulting from landslides, lateral spreading, subsidence, liquefaction or collapse?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☑ Less than Significant Impact
☐ No Impact

Less Than Significant Impact. Subsidence is the sudden sinking or gradual downward settling of the earth’s surface with little or no horizontal motion. Subsidence is caused by a variety of activities, which include (but is not limited to) withdrawal of groundwater, pumping of oil and gas from underground, the collapse of underground mines, liquefaction, and hydro-compaction. Liquefaction is a seismically induced form of ground failure, which has been a major cause of earthquake damage to roads, utility pipelines, buildings and other structures during past earthquakes in Southern California. Lateral spreading or “flow” are terms referring to landslides that commonly form on gentle slopes and that have rapid fluid-like flow movement, like water.
The project does not include the onsite removal of groundwater. Minor ground subsidence is expected to occur in the soils below the zone of removal due to settlement and machinery working. The actual amount of subsidence is expected to be variable and would be dependent on the type of machinery used, repetitions of use, and dynamic effects, all of which are difficult to precisely assess. As mentioned previously, the area is relatively flat and not subject to landslides or ground failure associated with unstable soils. Adherence to City and standard engineering requirements would reduce potential impacts associated with this issue to a level less than significant.

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 Impact
- [X] Less than Significant Impact
- [ ] Less Than Significant With Mitigation Incorporated
- [ ] No Impact

**Less Than Significant Impact:** Expansive soils generally have a significant amount of clay particles which can give up water (shrink) or take on water (swell). The change in volume exerts stress on buildings and other loads placed on these soils. The extent of shrink/swell is influenced by the amount and kind of clay in the soil. The occurrence of these soils is often associated with geologic units having marginal stability. The distribution of expansive soils can be widely dispersed and they can occur in hillside areas as well as low-lying alluvial basins.

The project area does not contain expansive soils as defined by Table 18-I-B of the Uniform Building Code (1994). The soils on-site are loamy sands, and psamments/fluvents. These soils belong to Group A of the hydrologic soil group, characterized as possessing high infiltration rate, and a low runoff potential. These soils have a low shrink-swell behavior and represent no substantial risks to life or property. The proposed project includes hydrological upgrades, which require the excavation of on-site soils. Construction of the proposed project site will be required to adhere to City design and engineering standards, therefore, impacts associated with this issue are considered less than significant.

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

- [ ] Potentially Significant Impact
- [ ] Less than Significant Impact
- [ ] Less Than Significant With Mitigation Incorporated
- [X] No Impact

**No Impact:** The proposed project consists of roadway improvements and does not propose the use septic tanks or alternative wastewater disposal systems. No impact is associated with this issue.
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?

☐ Potentially Significant Impact ☐ Less than Significant Impact

☑ Less Than Significant With Mitigation Incorporated ☐ No Impact

Less Than Significant With Mitigation Incorporated: According to CEQA Guidelines Section 15002(a)(1), one of the basic purposes of CEQA is to, “inform governmental decision makers and the public about the potential significant environmental effects of proposed actions.” Pursuant to SB 97 discussion of global warming impacts is newly required by CEQA Statutes and Guidelines.

The earth’s atmospheric greenhouse gases (GHGs) and clouds influence the earth’s temperature by absorbing infrared radiation (heat) rising from the earth’s sun-warmed surface that would otherwise escape into space. The process is commonly known as the Greenhouse Effect.

Release of GHGs into the atmosphere enhances the Greenhouse Effect causing temperature to increase. Greenhouse gases responsible for increasing the Greenhouse Effect and their relative contribution to the rise in temperatures include carbon dioxide (CO2); methane (CH4); near-surface ozone (O3); nitrous oxide (N2O); and chlorofluorocarbons (CFCs). These GHGs are primarily associated with the burning of fossil fuels (during transport, electricity generation, industry, manufacturing, etc.), deforestation, agricultural activity and gases from solid waste disposal. The most common GHG by volume is CO2, which constitutes approximately 84 percent of all GHG emissions in California. Worldwide, the State of California ranks as the 16th largest emitter of CO2 and is responsible for approximately 2 percent of the world’s CO2 emissions (CEC 2006a).

The State Legislature adopted the public policy position that global warming is, “a serious threat to the economic well being, public health, natural resources, and the environment of California” (Health and Safety Code Section 38501). Further, the State Legislature has determined that “potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and quantity of water to the state from the Sierra snow pack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious disease, asthma, and other human health related problems”, and that “global warming will have detrimental effects on some of California’s largest industries, including agriculture, wine, tourism, skiing, recreational and commercial fishing, and forestry [and] …will also increase the strain on electricity supplies necessary to meet the demand for summer air-conditioning in the hottest parts of the state” (Health and Safety Code Section 38501). These public policy statements became law with the enactment of AB 32, Statutes of 2006.
In general, air quality impacts from roadway improvement projects are the result of emissions from workers' motor vehicles and from short-term construction activities associated with such projects. The proposed project would result in a temporary increase in GHG emissions with construction vehicles. The incremental increase in CO₂ emissions as a result of the proposed project is presumed to be less than significant given that the use of diesel trucks is only for the duration of construction related activities and is considered to be a temporary impact. Neither the City nor the South Coast Air Quality Management District (SCAQMD) has adopted standards to provide a quantitative comparison or threshold. The SCAQMD identifies mitigation measures for construction related activities in their CEQA Analysis Handbook (currently being updated). The city will have to implement mitigation measures AQ-1 and AQ-2. These mitigation measures call for use of low emissions construction equipment, site watering, use of soil tracking controls for construction vehicles, use of slope stabilizers and seeding to minimize dust generation.

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

☐ Potentially Significant Impact   ☑ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated   ☐ No Impact

Less than Significant Impact: Neither the city, county, nor the SCAQMD currently have an adopted climate action plan that addresses greenhouse gas emissions inventory within the city, county and air basin. As mentioned in Section III, Air Quality, construction of the proposed project would not result in an increase in population. Therefore, the proposed project would not conflict with any applicable plans or policies. In addition, the city will have to implement the standard air pollutant emissions reduction measures discussed under Section III, Air Quality, and required as part of Mitigation Measure AQ-2. Therefore, impacts are determined to be less than significant.

VIII. HAZARDS AND HAZARDOUS MATERIALS -- Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, storage, use, or disposal of hazardous materials or wastes or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

☐ Potentially Significant Impact   ☐ Less than Significant Impact
☑ Less Than Significant With Mitigation Incorporated   ☐ No Impact

Less Than Significant Impact with Mitigation Incorporated: The project proposes roadway widening and hydrologic upgrades associated with the roadway improvements. Materials hazardous to humans, wildlife, and sensitive environments could be present during the grading, excavation, and paving of the roadway. Additionally, construction of
the proposed project would involve the transport of fuels, lubricants, and various other liquids needed for operation of construction equipment at the project sites. These materials may include: diesel fuel, gasoline, equipment fluids, concrete, cleaning solutions and solvents, lubricant oils, adhesives, and chemical toilets.

HDR conducted a Phase I Initial Site Assessment (ISA) of the proposed project area on August 27, 2009. The Phase I ISA identified Recognized Environmental Conditions (RECs) for the project corridor that may adversely affect roadway construction or project corridor right-of-way acquisition (if required). RECs are defined as “the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures, on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws.” (ASTM E1527-05). The Phase I ISA revealed one REC, one historic REC, and two sites of moderate concern in connection with the project corridor: Safety Kleen (7979 Palm Avenue; Norton Air Force Base Land Fill #2; ARCO (27323 5th Street); and Locky’s Service Garage (26578 E 5th Street). These sites are discussed in more detail under question 8c.

The land uses within the study area include mixed residential, commercial, and industrial in nature. Portions of the corridor have been subject to traffic for over 80 years, which could result in the deposition of lead from leaded gasoline. There is a risk of exposure to lead to construction/excavation workers from ingesting dust and direct contact. Soils adjacent of the paved areas should be tested prior to disturbance for aerially deposited lead in accordance with Caltrans ADL testing guidelines. Implementation of Mitigation Measure HAZ-1 would reduce the risk to a level less than significant. The project does not include demolition or renovation of structures on site that may contain Lead Based Paint (LBP) and Asbestos Containing Materials (ACMs). Impacts due to routine transport, storage, use, or disposal of hazardous materials or wastes are considered less than significant with the proposed mitigation.

Mitigation Measure:

HAZ-1. Prior to construction activities commencing, areas within the project site where the soil will be disturbed shall be tested for aerially deposited lead according to Caltrans ADL testing guidelines. If hazardous levels of aerially deposited lead are found, the city shall conform to the provisions in Section 19,"Earthwork,"of Caltrans Standard Special Provision (SSP).

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

- [ ] Potentially Significant Impact
- [ ] Less Than Significant With Mitigation Incorporated
- [ ] Less than Significant Impact
- [ ] No Impact
Less Than Significant Impact with Mitigation Incorporated: The project is located within one-quarter mile of Cypress Elementary School, located at 26825 Cypress Street. Additionally, a Headstart Preschool Development building is located within the project boundary at 26887 5th Street.

The project includes construction which would involve the transport of fuels, lubricants, and various other liquids needed for operation of construction equipment at the project sites. These materials may include; diesel fuel, gasoline, equipment fluids, concrete, cleaning solutions and solvents, lubricant oils, adhesives, and chemical toilets. The area is currently mixed residential, commercial, and industrial in nature. Portions of the corridor have been subject to traffic for over 80 years, which could result in the deposition of lead from leaded gasoline. The risk of exposure to lead may exist to construction/excavation workers from ingesting dust and direct contact exist.

HDR conducted a Phase I Initial Site Assessment (ISA) of the proposed project area on August 27, 2009. The Phase I ISA identified Recognized Environmental Conditions (RECs) for the project corridor that may adversely affect roadway construction or project corridor right-of-way acquisition (if required). RECs are defined as “the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures, on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws.” (ASTM E1527-05). The Phase I ISA revealed one REC, one historic REC, and two sites of moderate concern in connection with the project corridor:

- Safety Kleen, located at 7979 Palm Avenue, has soil contaminated with TPH and VOCs between the east and west warehouse, adjacent to 3rd Street. Corrective measures are currently underway. Investigations by Safety Kleen have determined that groundwater contamination has not occurred, and that the extent of soil contamination has not extended past the Safety Kleen property. However, since the 3rd Street project includes widening and expansion of right-of-way, soil contamination may be present on or near planned acquisition/excavation areas. This site is identified as a high-risk site and a REC.

- Norton AFB Landfill # 2 is located less than 400 feet from the Central Avenue/3rd Street intersection, and within 800 feet of the Palm Avenue/3rd Street intersection. Groundwater contains VOCs, primarily PCE, at levels below the MCLs. Although the site has a number of potential risk factors, these factors are mitigated by the distance and hydrologically down gradient position of the site (relative to the project corridor). This site is identified as a moderate risk site, but not a REC.

- ARCO Facility No. 05617, located at 27323 5th Street, was a former LUST case that was closed in 2001. This site identified as a moderate risk site, but not a REC.
• Locky’s Service Garage, located at 26578 E. 5th Street, is a facility that had old cars and equipment in an unpaved yard during the site visit, with no observed soil staining. This site identified as a moderate risk site, but not a REC.

It was noted that soil contamination may be present on or near planned acquisition/excavation areas along 3rd Street near Safety Kleen. Mineral spirits or volatile organic compounds may be present in the soil, which, if present would result in the need for contaminant-related health and safety measures for the contractor or the need to manage contaminated soils during construction. Implementation of Mitigation Measures HAZ-2 and HAZ-3 would ensure the safety of the construction/excavation workers from coming into direct contact with the hazardous substances or ingesting contaminated dust particles, in addition to preventing the release of contaminated dust particles into the air. Based on implementation of MM HAZ-2 and HAZ-3 this impact will be reduced to level less than significant.

Mitigation Measures

HAZ-2. Prior to construction activities, the City shall prepare a Phase II Site Investigation in the right-of-way in front of the Safety Kleen systems site at 7979 Palm Avenue to determine if mineral spirits or volatile organic compounds from the soil contamination on site is present in the right-of-way and may result in the need for contaminant-related health and safety measures for the contractor or the need to manage contaminated soils during construction.

HAZ-3. The City shall notify the selected construction contractor that subsurface contaminated soils may be present within the construction zone in the vicinity of the Safety Kleen site (7979 Palm Avenue). The construction contractor shall prepare a contaminated soil removal plan in the event it is determined that the soils contain hazardous materials. The plan should outline the excavation, documentation, and disposal of impacted materials in compliance with applicable environmental laws and regulations.

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

☐ Potentially Significant Impact
☐ Less than Significant Impact
☒ Less Than Significant With Mitigation Incorporated
☐ No Impact

Less than Significant Impact with Mitigation Incorporated: A computerized environmental information database search was performed for the project site by Environmental Data Resources, Inc. (EDR) on August 17, 2009. The databases searched included federal, state, local, tribal, and EDR proprietary databases as defined by ASTM E 1527-05. Only results within a ¼ mile of the project corridor were investigated. The EDR database search identified a total of 146 listings within ¼ mile of
the project corridor. Of the 146 records listed in the EDR report, 36 listings are associated with sites of concern to the project. The remaining listings are for sites or conditions that the assessor has determined to be of low risk to the project site. Violations are not always associated with listings in the EDR report. Some of the listings contain both facility information and ‘pointers’ to other sources that contain more details. The 36 listings provide information 4 sites of concern.

**Former Norton Air Force Base**

The only site on the former Norton AFB of concern is Landfill #2. It is located less than 400 feet to the east southeast of the Central Avenue/3rd Street intersection, and within 800 feet west southwest of the Palm Avenue/3rd Street intersection. This landfill operated from 1958 to 1980, and accepted general refuse, construction debris, and industrial waste, including spent solvents, acids, refrigerants, paint strippers, paints, thinners, waste oil, and sludge. Investigations of this former landfill indicate the presence of landfill gas containing methane and VOCs (primarily tetrachloroethylene [PCE] and vinyl chloride) and PCE. Trichloroethylene (TCE), 1,2-dichloroethylene (1,2-DCE), and vinyl chloride have infrequently been detected above their MCLs. Groundwater contains VOCs, primarily PCE, at levels below the MCLs. The site has engineering and institutional controls in place to limit human contact with the residual contaminants.

**Safety Kleen, located at 7979 Palm Avenue**

Safety Kleen has had small spills with documented clean-up actions in the past. TPH and VOC-contaminated soil exists on the Safety Kleen property between the east and west warehouse, adjacent to 3rd Street. The contaminated soil is associated with a former 10,000-gallon waste mineral spirits UST, a former 1,000-gallon waste mineral spirits UST, and a former “return and fills” area. Corrective measures are currently underway. Investigations by Safety Kleen have determined that groundwater contamination has not occurred.

**ARCO Gas Station Facility No 05617 located at 27323 5th Street**

According to the State LUST database, leaking gasoline tank piping and contaminated soil was discovered in 1999. The case was closed in 2001.

**Locky’s Service Garage**

Locky’s Service Garage, located at 26578 E. 5th Street, is of potential concern because the facility had old cars and equipment in an unpaved yard during site reconnaissance. This facility is listed in the San Bernardino County Permit database as a special generator. The phase I investigators determined this site to be of moderate risk. It is not considered a REC.

As mentioned previously, soil contamination may be present on or near planned acquisition/excavation areas along 3rd Street near Safety Kleen. Mineral spirits or
volatile organic compounds may be present in the soil, which, if present would result in the need for contaminant-related health and safety measures for the contractor or the need to manage contaminated soils during construction. Implementation of Mitigation Measures HAZ-2 and HAZ-3 would reduce the potential impacts 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 two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

☐ Potentially Significant Impact  ☑ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated  ☐ No Impact

**Less than Significant Impact:** The proposed project is located within one-quarter mile of the San Bernardino International Airport. The Land Use Compatibility Plan (ALUCP) for the San Bernardino International Airport has not currently been approved by the Federal Aviation Administration. A draft Airport Overlay Zone and Safety Compatibility Ordinance was drafted in August 2007, in accordance with the City of Highlands’s Airport Land Use Compatibility and Cooperative Agreement.

According to the Airport Overlay Zone, the majority of the project area is located in Airport Influence Zone E, with a small portion of the intersection of 5th Street from Palm Avenue to the I-210 as located in the Traffic Pattern Zone D. Airport operations include noise and safety hazards; Zone D is designated as a moderate risk level, and airport zone E is designated as a negligible risk level. Both of these zones are not located within the designated noise contours for the airport influence area.

Additionally, the project does not include construction of any structure equal to or greater than 150 feet in height. Therefore, the project will not constitute a safety hazard for people residing or working in the project area, impacts are considered less than significant.

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

☐ Potentially Significant Impact  ☐ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated  ☑ No Impact

**No Impact:** The proposed project is not within one mile of a private airstrip. Implementation of the proposed project will not result in a safety hazard for people residing or working in the project area. No impact is identified for this issue area.
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

- [ ] Potentially Significant Impact
- [x] Less than Significant Impact
- [ ] Less Than Significant With Mitigation Incorporated
- [ ] No Impact

**Less Than Significant Impact:** The proposed project would be designed, constructed, and maintained in accordance with applicable standards associated with vehicular access. Provisions for adequate vehicular access to provide for adequate emergency access and evacuation will be in place prior to the start of construction activities. Construction activities that may temporarily restrict vehicular traffic would be required to implement adequate and appropriate measures to facilitate the passage of persons and vehicles through/around any required road closures. Adherence to these measures would reduce potential impacts related to this issue to a less than significant level.

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?

- [ ] Potentially Significant Impact
- [x] Less than Significant Impact
- [ ] Less Than Significant With Mitigation Incorporated
- [ ] No Impact

**Less Than Significant Impact:** According to the City of Highland General Plan, the northeastern and eastern portions of the City are susceptible to wildfires due to the steep topography, vegetation, and seasonal conditions. The proposed project is located in a developed area within the City of Highland. The Public Health and Safety Element in the City of Highland General Plan identifies the project area as located east of designated Fire Severity Zones (I and II). Due to the lack of vegetation, the area has a low probability to be subject to wildland fires. Therefore, a less than significant impact is identified.

i) Propose a use, or place residents adjacent to an existing or reasonably foreseeable use that would substantially increase current or future resident’s exposure to vectors, including mosquitoes, rats or flies, which are capable of transmitting significant public health diseases or nuisances?

- [ ] Potentially Significant Impact
- [ ] Less than Significant Impact
- [x] Less Than Significant With Mitigation Incorporated
- [ ] No Impact

**No Impact:** The project does not involve or support uses that allow water to stand for a period of 72 hours (3 days) or more (e.g., artificial lakes, agricultural irrigation ponds). Also, the project does not involve or support uses that will produce or collect animal waste, such as equestrian facilities, agricultural operations (chicken coops, dairies etc.),
solid waste facility or other similar uses. Moreover, based on a site visit conducted by HDR staff on July 8, 2009 there are none of these uses on adjacent properties. Therefore, the project will not substantially increase current or future resident's exposure to vectors, including mosquitoes, rats or flies. No impact is identified for this issue area.

IX. HYDROLOGY AND WATER QUALITY -- Would the project:

a) Violate any waste discharge requirements?

☐ Potentially Significant Impact  ☑ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated  ☐ No Impact

Less Than Significant Impact: The proposed project includes roadway and storm drainage system improvements as outlined in the project description. The project consists of widening approximately 2.4 miles of roadway for an additional 132 feet of street widening. The roadway drainage system improvements include a storm drain system along Victoria Avenue (3rd Street to 9th Street) which includes the regrading of the existing City Creek Bypass Channel 1,200 feet west of Victoria Avenue, and improvements along 5th Street from City Creek Channel to Palm Avenue, extending in Palm Avenue to 3rd street, extending east in 3rd street for approximately 500 feet.

Construction projects resulting in the disturbance of 1.0 acre or more require a National Pollutant Discharge Elimination System (NPDES) permit. It is anticipated that since the proposed project is a City facility, the City would file a Notice of Intent (NOI) to comply with the NPDES Construction Activity General Permit. A component of the NPDES permit is the preparation of a Storm Water Pollution Prevention Plan (SWPPP). The purpose of an SWPPP is to identify and implement Best Management Practices (BMPs) to reduce impacts to surface water from contaminated stormwater discharges. Compliance with the project-specific SWPPP would reduce impacts related to this issue to a level less than significant.

b) Is the project tributary to an already impaired water body, as listed on the Clean Water Act Section 303(d) list? If so, could the project result in an increase in any pollutant for which the water body is already impaired?

☐ Potentially Significant Impact  ☑ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated  ☐ No Impact

Less Than Significant Impact: The Federal Clean Water Act Section 303(d) requires that States identify waters that do not or are not expected to meet water quality standards (beneficial uses, water quality objectives and the antidegradation policy) with the implementation of technology-based controls. Once a waterbody has been placed on the 303(d) list of impaired waters, states are required to develop a Total Maximum
Daily Load (TMDL) to address each pollutant causing impairment. A TMDL defines how much of a pollutant a waterbody can tolerate and still meet water quality standards. Each TMDL must account for all sources of the pollutant, including: discharges from wastewater treatment facilities; runoff from homes, forested lands, agriculture, and streets or highways; contaminated soils/sediments, legacy contaminants such as DDT and PCBs on-site disposal systems (septic systems) and deposits from the air. Federal regulations require that the TMDL, at a minimum, account for contributions from point sources (permitted discharges) and contributions from nonpoint sources, including natural background. In addition to accounting for past and current activities, TMDLs may consider projected growth that could increase pollutant levels. TMDLs allocate allowable pollutant loads for each source, and identify management measures that, when implemented, will assure that water quality standards are attained.

The project lies in the Santa Ana Canyon hydrologic subarea, within the Santa Ana River hydrologic unit (801.57). According to the Final 2008 California 303(d)/305(b) Integrated Report for Santa Ana Region, City Creek contains the following contaminants: Arsenic, Copper, Iron, Lead, Mercury, Selenium, and Zinc. Based on the readily available data and information, City Creek was not placed on the section 303(d) list in the Water Quality Limited Segments category. None of six the samples exceeded the California Toxics Rule. After review of the available data and information, RWQCB staff concluded that the water body-pollutant combination should not be placed on the section 303(d) list because applicable water quality standards are not being exceeded (http://www.waterboards.ca.gov/santaana/water_issues/programs/tmdl/303d/01866.shtml#12736).

The proposed project would not involve a change in land use with the exception of converting some vacant areas to roadway. It is anticipated that because the project site would add a minimal amount of impervious surfaces, the effect of the proposed project on the velocity or volume of downstream flows would be negligible. The proposed project includes improvements to the storm drainage system which include a storm drain system along Victoria from 3rd Street to 9th Street, regrading of the existing City Creek Bypass Channel 1,200 feet west of Victoria Avenue, and a storm drain system along 5th Street from City Creek Channel to Palm Avenue (extending in Palm Avenue to 3rd Street and extending east in 3rd Street for approximately 500 feet). The improvements are proposed in order to increase the City’s storm drain capacity and efficiency. Conditions resulting from this change could degrade existing water quality due to increased runoff volumes and velocity; reduce infiltration; increase flow frequency, duration, and peak; and result in faster time to reach peak flow. The proposed project includes the installation of treatment BMPs that would remove pollutants from runoff coming from the project site. Therefore, impacts related to this issue are considered to be less than significant.
c) Could the proposed project cause or contribute to an exceedance of applicable surface or groundwater receiving water quality objectives or degradation of beneficial uses?

☐ Potentially Significant Impact  ☑ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated  ☐ No Impact

Less Than Significant With Mitigation Incorporated: Development of the project site would result in an increase in the amount of impervious surfaces in the form of additional drainage structures and roadway pavement. Conditions resulting from this change could degrade existing water quality due to increased runoff volumes and velocity; reduce infiltration; increase flow frequency, duration, and peak; and result in faster time to reach peak flow. The proposed project includes installation of treatment BMPs that would remove pollutants from runoff coming from the project site. Because treatment BMPs would be installed, impacts associated with this issue would be reduced to below a level of significance.

d) 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 Impact  ☑ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated  ☐ No Impact

Less Than Significant Impact: The project site is part of the Upper Santa Ana Valley Groundwater Basin and is within the service boundaries of the East Valley Water District (EVWD). Development of the proposed project would not require any withdrawal of groundwater beneath the project site. Construction of the drainage improvements would require excavation of the City Creek Overflow channel; however, the excavation of the soil is not anticipated to impact the groundwater basin. Drainage improvements along 5th Street from City Creek Channel to Palm Avenue and Victoria from 3rd Street to 9th Street, including the regrading of the existing City Creek Bypass Channel 1,200 feet west of Victoria Avenue. The bottom of the channel will remain as a soft bottom flow area. This aspect of the proposed project would not substantially interfere with groundwater recharge. The impact is less than significant.
e) 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 Impact
- Less Than Significant With Mitigation Incorporated
- Less than Significant Impact
- No Impact

**Less Than Significant Impact:**

f) 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 Impact
- Less Than Significant With Mitigation Incorporated
- Less than Significant Impact
- No Impact

**Less Than Significant Impact:** The proposed project will result in the conversion of approximately 0.06 miles of pervious land to impervious surfaces.

- Potentially Significant Impact
- Less Than Significant With Mitigation Incorporated
- Less than Significant Impact
- No Impact

**Less Than Significant Impact:** Development of the project consists of widening approximately 2.4 miles of roadway for an overall addition of 132 feet of street width. The proposed project will result in the conversion of approximately 0.06 miles of pervious land to impervious surfaces. Conditions resulting from this change could degrade existing water quality due to increased runoff volumes and velocity; reduce infiltration; increase flow frequency, duration, and peak; and result in faster time to reach peak flow. This amount of conversion to impervious surfaces will not contribute runoff water that would exceed the capacity of existing storm water drainage systems. Additionally, hydrologic upgrades are proposed from Victoria from 3rd to 9th Street, and the storm drain system extending easterly along 5th Street near Palm and Church Streets. The proposed project would include the installation of treatment BMPs that would remove pollutants from runoff coming from the project site. Because treatment BMPs would be installed, impacts associated with this issue would be reduced to below a level of significance.
h) Provide substantial additional sources of polluted runoff?

☐ Potentially Significant Impact  ✓ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated  ☐ No Impact

Less Than Significant Impact: Please refer to Checklist Question 9a, 9b, and 9g responses. A site specific Storm Water Pollution Prevention Plan (SWPPP) in accordance with the California RWQCB (Santa Ana, Region 8) would be required. Implementation of the proposed project would not otherwise substantially degrade water quality, resulting in a less than significant impact to drainage.

i) 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, including County Floodplain Maps?

☐ Potentially Significant Impact  ☐ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated  ✓ No Impact

No Impact: According to the City General Plan, City Creek located adjacent to 5th Street and I-210 is located in 100-year flood plan (FEMA Flood Insurance Rate Maps 1996). The project does not include a residential component; therefore, it will not place housing within a 100-year flood hazard area. Therefore, implementation of the proposed project would not result in an impact related to this issue.

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

☐ Potentially Significant Impact  ✓ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated  ☐ No Impact

Less Than Significant: Figure 6.5 of the general plan depicts flood hazard areas within City boundaries, including the 100-Year and 500-Year Floodplains. Portions of the project site adjacent to City Creek at 5th Street and I-210 are within the 100-year floodplain. In addition, the City Creek Channel intersects the project area at 5th Street, west of Central Avenue, which is also with the 100-year floodplain.

Although the proposed project would be within the 100-year floodplain, it would be designed to withstand floodwaters. Hydrological improvements within the City Creek Overflow channel adjacent to 3rd Street and Victoria would not change the flow of water, or the amount of water that the channel could accommodate. The regrading of City Creek Overflow would improve flood flows through the area. The project is does not include the construction of structures, access roads or other improvements which will
impede or redirect flood flows in these areas. Therefore, impacts due to this issue area are considered less than significant.

k) Expose people or structures to a significant risk of loss, injury or death involving flooding?

☐ Potentially Significant Impact ☐ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ No Impact

No Impact: The proposed project does not include the construction of commercial use buildings or residential homes. The project will not expose people or structures to a significant risk of loss, injury, or death involving flooding.

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

☐ Potentially Significant Impact ☑ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ No Impact

Less Than Significant: The project lies west of the Seven Oaks Dam within San Bernardino County, as identified on an inundation map in the City’s General Plan (U.S. Army corps of Engineers). In the event of a dam failure at Seven Oaks Dam, the City Creek would experience a flood risk. According to the City General Plan, all southern exits from Highland could be impassable during a major inundation event. Although the project site is within the potential dam inundation area for the Seven Oaks Dam, occurrence of such an event is extremely rare. The Seven Oaks Dam has been engineered and constructed to withstand the projected maximum accelerations that could be produced at the site by seismic events on known faults. As such, a seismically-induced failure of the dam is unlikely. Additionally, the proposed project would be designed and constructed as to allow anticipated flood flows to flow through unrestricted. For these reasons, potential impacts related to this issue are less than significant.

m) Inundation by seiche, tsunami, or mudflow?

☐ Potentially Significant Impact ☑ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ No Impact

i. Seiche

No Impact: The project site is not located along the shoreline of a lake or reservoir; therefore, could not be inundated by a seiche. No impact is identified for this issue area.
ii. Tsunami

**No Impact:** The project site is located more than a mile from the coast; therefore, in the event of a tsunami, would not be inundated.

iii. Mudflow

**Less Than Significant Impact:** Mudflows take place when fast-moving water combines with large amounts of sediment, usually from a landslide. The site is not located within a landslide susceptibility area. The topography of the Highland area ranges in steepness from 0 percent slope to 15 percent slope. The project area is relatively flat with an elevation range of 1,146 to 1,225 feet above sea level. The foothill slopes of the San Bernardino Mountains are subject to erosion, seismic and non-seismic related landslides, mudslide, and slope collapse. City Creek terminates into the Santa Ana River south of the San Bernardino International Airport. The project site's location in a floodplain, its general proximity to major earthquake fault systems, and its location to City Creek indicates that the occurrence of a mud slide coming through the area is possible. Although there is a possibility that a mud slide could come through the area, the proposed project would be built to withstand floodwaters, which are a significant component of a mudslide. Because the proposed project would be designed to withstand floodwaters and debris flows and would be built to reduce the probability of floodwaters overflowing onto the bridge, impacts associated with mudslides would be reduced to below a level of significance.

**X. LAND USE AND PLANNING -- Would the project:**

a) Physically divide an established community?

- [ ] Potentially Significant Impact
- [ ] Less Than Significant Impact
- [X] Less than Significant Impact
- [ ] No Impact

**Less Than Significant Impact:** The project does not include new infrastructure such as major roadways, water supply systems, or utilities to the area. The proposed project consists of upgrades to existing infrastructure. During construction some roads may temporarily have limited access, which may disrupt access to residential areas. The City will be required to prepare a construction traffic control plan that would outline the roadway closures and detours. Impacts due to this issue area are considered less than significant.

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?

- [ ] Potentially Significant Impact
- [X] Less than Significant Impact
- [ ] No Impact
Less Than Significant Impact: The City of Highland General Plan was developed with the SCAG Regional Transportation Plan in mind to achieve the City’s role in regional transportation planning. The project area east-west 5th Street provides access to the I-210 freeway, the San Bernardino International Airport, and industrial and/or commercial uses. The north-south Victoria and Palm Avenues are designated as truck routes to accommodate commercial and industrial uses in the area. Further improvements to or in the vicinity of the freeway interchanges (e.g., truck climbing lanes on uphill on-ramps) may need future consideration. Additionally, it is identified in the Circulation Element of the General Plan that 5th Street under I-210 and the ramp intersections need to be widened to accommodate additional turn lane requirements and to eliminate stacking deficiencies at the intersection locations. The proposed project would increase the roadway width on 5th Street from Church to I-210 from 88’ curb to curb to 104’ right-of-way and 114’ curb to curb under I-210 with on-street bike lanes.

In the Community Design Element, the City has designated 3rd and 5th Streets as prominent corridors to act as throughways to the industrial and business park districts and to provide access to the San Bernardino International Airport. Victoria Avenue also serves as access to the San Bernardino International Airport. These arterial areas are to receive more formal, skyway landscape treatment, with formal placement of trees, light standards, banners and signage.

The City of San Bernardino and the City of Highland have different functional classifications for some roadway segments illustrated on the City of Highland’s Circulation Element. The City of San Bernardino identifies 5th Street from Shirley Avenue to Palm Avenue as a major arterial (6-lane divided), whereas the City of Highland lists this same roadway segment as a major highway (4-lane divided).

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

- Potentially Significant Impact
- Less Than Significant Impact With Mitigation Incorporated
- Less than Significant Impact
- No Impact

No Impact. There is no adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan applicable to the project, there will be no impact. The project site is not subject to any adopted habitat conservation plan or natural community conservation plan; therefore, no impact related to this issue would occur.

XI. MINERAL RESOURCES -- 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?

- Potentially Significant Impact
- Less Than Significant Impact With Mitigation Incorporated
- Less than Significant Impact
- No Impact
Less Than Significant Impact: Due to the availability of large washes and stream channels, the area contains significant aggregate and mineral resources. Primary minerals found in the area are iron, decorative, rocks, clay, limestone, sand and gravel. The City overlies areas identified as Mineral Resource Zones (MRZ) categories 1-3. More than half of the city is underlain by MRZ-2 rated mineral resources, with most of the remaining categorized as MRZ-3. The project area is located within MRZ-2.

The project site is surrounded by densely developed land uses including commercial and industrial which are incompatible to future extraction of mineral resources on the project site, making future mining operations infeasible. Therefore, implementation of the proposed project will not result in the loss of availability of a known mineral resource. The impact is less than significant.

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?

☐ Potentially Significant Impact  ☑ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated  ☑ No Impact

No Impact: The project site is zoned (R-1) Single Family Residential, (PD) Planned Development, (BP) Business Park, (I) Industrial, (OS) Open Space, (P/Q) Public/Quasi Public, which are not considered to be conducive to the activity of mineral extraction. The project site does not contain a known locally-important mineral resource as designated in the City’s general plan. The project site is surrounded by densely developed land uses including commercial and industrial which are incompatible to future extraction of mineral resources on the project site, making future mining operations infeasible.

XII. NOISE -- 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?

☐ Potentially Significant Impact  ☑ Less than Significant Impact
☑ Less Than Significant With Mitigation Incorporated  ☑ No Impact

Less Than Significant Impact: The project is a roadway improvement project and will be occupied by construction equipment during the various construction phases, both long-term and short-term. Based on a site visit completed by HDR on July 8, 2009, the majority of the surrounding area supports commercial and industrial uses. Some residential is located on 5th Street prior to Victoria Avenue, and Victoria Avenue, in addition the rear of an apartment complex located on Mossway Street is adjacent 5th Street and Central Avenue. The project will expose people to potentially significant noise levels during the various phases of construction that may exceed the allowable limits of the City of Highland.
Neither the County of San Bernardino nor the City specifically addresses construction building noise standards, only operational noise standards. The City categorizes land uses into designated noise zones to assign appropriate interior and exterior noise standards. The appropriate interior and exterior noise standards are identified in Tables 3 and 4, respectively.

### Table 3 - City of Highland Interior Noise Standards

<table>
<thead>
<tr>
<th>Type of Land Use</th>
<th>CNEL (dBA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>45</td>
</tr>
<tr>
<td>Educational/churches, other institutional uses</td>
<td>45</td>
</tr>
<tr>
<td>General offices</td>
<td>50</td>
</tr>
<tr>
<td>Retail stores, restaurants</td>
<td>55</td>
</tr>
<tr>
<td>Manufacturing, warehousing</td>
<td>65</td>
</tr>
<tr>
<td>Agricultural</td>
<td>55</td>
</tr>
<tr>
<td>Sand and gravel operations</td>
<td>75</td>
</tr>
</tbody>
</table>

Source: Chapter 8.50, Noise Control, City of Highland Municipal Code.

### Table 4 - City of Highland Exterior Noise Standard

<table>
<thead>
<tr>
<th>Type of Land Use</th>
<th>Time Interval</th>
<th>CNEL (dBA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>10:00 p.m. – 7:00 a.m.</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>7:00 a.m. – 10:00 p.m.</td>
<td>60</td>
</tr>
<tr>
<td>Agricultural/Equestrian</td>
<td>10:00 p.m. – 7:00 a.m.</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>7:00 a.m. – 10:00 p.m.</td>
<td>65</td>
</tr>
<tr>
<td>Commercial</td>
<td>10:00 p.m. – 7:00 a.m.</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>7:00 a.m. – 10:00 p.m.</td>
<td>70</td>
</tr>
<tr>
<td>Manufacturing or Industrial</td>
<td>Any Time</td>
<td>75</td>
</tr>
<tr>
<td>Open Space</td>
<td>Any Time</td>
<td>75</td>
</tr>
</tbody>
</table>

Source: Chapter 8.50, Noise Control, City of Highland Municipal Code.

Based on the City of Highland’s Municipal Code and General Plan Noise Element, the noise standard for residential uses is 45 CNEL (dBA) for interior noise. For exterior noise standards, there are two standards: 55 CNEL (dBA) between 10:00 p.m. and 7:00 a.m., and 60 CNEL (dBA) between 7:00 a.m. and 10:00 p.m.

The project area is located adjacent the San Bernardino International Airport noise buffer zone, which already subjects residents and the area to excessive noise levels. The California Airport Noise Regulations state that the level of noise acceptable for persons residing in the vicinity of an airport is a CNEL of 65 dBA. Further, it states incompatible land uses to include residences of all types, public and private schools, hospitals, and churches.

Current land uses which are located in the project area are deemed least noise insensitive land uses include industrial, manufacturing, utilities, open space, and
undeveloped lands. Some residences are located on Victoria Avenue and 5th Street near Victoria Avenue, of which are located within the airport land use area and would be considered non-conforming land uses. Although, a noise report was not conducted for this analysis, the temporary construction noise is anticipated to range from 75 dBA to 95 dBA. Table 5 presents an example of construction noise levels that can be anticipated during all construction phases of the project.

### Table 5 - Typical Construction Equipment Noise Generation Levels

<table>
<thead>
<tr>
<th>Equipment Type</th>
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The nearest sensitive receptors to the project site are the Highland Sam J. Racadio Library located on Central Avenue, the Headstart Program building located within the project boundary on 26887 5th Street, and Cypress Elementary School, located at 26825 Cypress Street (0.38 miles north of the project area). Construction activities will expose people to potentially significant noise levels that exceed the allowable limits of the City of Highland Noise Element. Mitigation Measures NOS-1 through NOS-5 would reduce noise impacts to below a level of significance.

NOS-1. Upon submittal of final engineering design, the City shall minimize hours of operations between 7:00 a.m. and 6:00 p.m. Monday through Saturday, with no permitted activities on Sundays or public holiday.

NOS-2. The construction staging areas shall not be located adjacent to residential areas or to the identified sensitive receptors: Highland Sam J. Racadio Library located on Central Avenue, Headstart Program building located on 26887 5th Street, and Cypress Elementary School, located at 26825 Cypress Street.

NOS-3. The contractor shall erect portable noise-barriers to shield nearby residences from direct exposure to project construction noise. Barriers shall be erected in the vicinity of residential properties as necessary to reduce construction noise levels to 70 dBA or below.

NOS-4. The contractor shall issue a notice of intent to start construction to the public, residences and commercial establishments in the project vicinity 30 days prior to the start of construction. The notices shall include hours of construction and the construction schedule. The notice shall provide an overview of the types of noise and vibration which will occur, the reason for the occurrence, and measures being taken to minimize disturbance.

NOS-5. Proper signage indicating parking and access for existing commercial and industrial businesses shall be provided to lessen the effects of business disruption that may occur from any anticipated road closures due to roadway construction.

In addition, according to the Highland Municipal Code, Title 8 Health and Safety, 8.50.060L, Construction, repair or excavation work performed pursuant to a valid written agreement with the City or any of its political subdivisions, which agreement provides for noise mitigation measures would be considered exempt from provisions in Section 8.50.050. Therefore, the project will not contribute to a cumulatively considerable exposure of persons or generation of noise levels in excess of standards established in the local general plan, noise ordinance, and applicable standards of other agencies.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☒ Less than Significant Impact
☐ No Impact
Less Than Significant Impact: Vibration refers to groundborne noise and perceptible motion. Typical sources of groundborne vibration are construction activities (e.g., blasting, pile driving, and operating heavy-duty earthmoving equipment), steel-wheeled trains, and occasional traffic on rough roads. Groundborne vibration is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors, where the motion may be discernable but without the accompanying effects (e.g., shaking of a building). Building damage is not a factor for normal projects, with the occasional exception of blasting and pile driving during construction. Problems with groundborne vibration and noise are usually localized to areas within about 100 feet from the vibration source, although there are examples of groundborne vibration causing interference out to distances greater than 200 feet. The City of Highland does not have any groundborne vibration standards. According to the County of San Bernardino, Ordinance 83.01.090(c), temporary construction, maintenance, repair, or demolition activities between 7:00 a.m. and 7:00 p.m., except Sunday and federal holidays are considered exempt from the regulations of Section 83.01.090. The level of vibration associated with the proposed roadway improvements is not excessive or permanent, nor would it cause any damage to the buildings. Therefore, impacts from construction-related groundborne vibration construction would be less than significant.

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

- Potentially Significant Impact
- Less Than Significant Impact
- Less Than Significant With Mitigation Incorporated
- No Impact

No Impact: Noise impacts associated with the proposed project are anticipated during construction only. The proposed project does not include any noise generating components that would result in operational noise impacts. Therefore, the project would not result in a substantial permanent increase in existing ambient noise levels in the project vicinity. No impact is identified for this issue area.

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

- Potentially Significant Impact
- Less Than Significant Impact
- Less Than Significant With Mitigation Incorporated
- No Impact

Less Than Significant Impact: Temporary or periodic increases in ambient noise levels would occur during construction of the proposed project. Construction activities are anticipated to require the use of earthmovers, bulldozers, water trucks, and pickup trucks. The nearest sensitive receptors are the Highland Sam J. Racadio Library located on Central Avenue, the Headstart Program building located within the project boundary on 26887 5th Street, and Cypress Elementary School, located at 26825 Cypress Street (0.38 miles north of the project area). These sensitive receptors may be subject to...
short-term noise impacts by construction activities. Noise generated during the construction phase is temporary and would cease once construction has been completed. Because construction activities would generate noise in excess of City noise standards, Mitigation Measures NOS-1 through NOS-5 have been identified. Implementation of these measures in addition to compliance with City noise regulations would reduce impacts associated with this issue 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 two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

- Potentially Significant Impact
- Less Than Significant With Mitigation Incorporated
- Less than Significant Impact
- No Impact

**Less Than Significant Impact:** The proposed project is located within one-quarter mile of the San Bernardino International Airport. The Land Use Compatibility Plan (ALUCP) for the San Bernardino International Airport has not currently been approved by the Federal Aviation Administration. A draft Airport Overlay Zone and Safety Compatibility Ordinance was prepared in August 2007, in accordance with the City of Highlands’s Airport Land Use Compatibility and Cooperative Agreement.

According to the Airport Overlay Zone, the proposed project is located in Airport Influence Zone E for the majority of the project area, with a small portion of the intersection of 5th Street from Palm Avenue to the I-210 as located in the Traffic Pattern Zone D. Airport operations include noise and safety hazards; Zone D is designated as a moderate risk level, and airport zone E is designated as a negligible risk level. Both of these zones are not located within the designated noise contours for the airport influence area. The proposed project does not include a commercial or residential component. Therefore, impacts due to this issue area are considered less than significant.

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?

- Potentially Significant Impact
- Less Than Significant With Mitigation Incorporated
- Less than Significant Impact
- No Impact

**No Impact:** The proposed project is not located within a one-mile vicinity of a private airstrip; therefore, no impact associated with this issue would occur.
XIII. POPULATION AND HOUSING – 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)?

☐ Potentially Significant Impact  ✓ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated  ☐ No Impact

Less Than Significant Impact: The proposed project is not anticipated to induce substantial population growth in the area. The project proposes widening of the following roadways:

- 5th Street (Victoria to Palm) – 80’ curb to curb-104’ right-of-way with an on-street bike lane;
- 5th Street (Church to SR-210) – 88’ curb to curb-104’ right-of-way, 114’curb to curb under SR-210 with an on street bike lanes;
- 3rd Street (Palm to 5th/Church intersection) – 64’ curb to curb within 88’ right-of-way;
- Victoria Avenue (3rd to 9th) – 80’ curb to curb – 104’ right-of-way;
- Central Avenue (3rd to 5th) – 44’ curb to curb – 66’ right-of-way;
- Palm Avenue (3rd to 5th) – 80’ curb to curb – 104’ right-of-way; and
- Adjusting the southbound SR-210 on and off ramp profiles and widening the ramps to account for improvements on 5th.

The physical changes of the roadway improvements will not directly induce population growth in an area. However, it could indirectly induce population due to the increased capacity of the roadways after the improvements. This area is identified by the City of Highland and the City of San Bernardino as a prime area for industrial and business park development, and as a primary gateway for the San Bernardino International Airport. The proposed infrastructure upgrades are necessary for the future development of the area. The project is proposed to meet existing and planned growth within the City and region. Therefore, impacts due to this issue area are considered less than significant.

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

☐ Potentially Significant Impact  ☐ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated  ✓ No Impact
No Impact: The project site currently has single-family residential houses, multi-family dwelling units, commercial and industrial businesses, which are to remain. This roadway improvement would not displace any amount of existing housing. Therefore, no impacts due to this issue area are identified.

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

☐ Potentially Significant Impact ☐ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated ☑ No Impact

No Impact: The project site currently has single-family residential houses, multi-family dwelling units, commercial and industrial businesses, which are to remain. This roadway improvement would not displace any people to other areas. Therefore, no impacts due to this issue area are identified.

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 service ratios, response times or other performance objectives for any of the public services:

i. Fire protection?
ii. Police protection?
iii. Schools?
iv. Parks?
v. Other public facilities?

☐ Potentially Significant Impact ☑ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated ☐ No Impact

i. Fire protection?

No Impact: The proposed project will result in roadway and drainage system improvements and would not require fire protection services. Because the proposed project would not require fire protection services, no impacts would occur with respect to the provision of fire protection services.
ii. Police protection?

**No Impact:** The proposed project consists of roadway and drainage system improvements. It is not anticipated that police services would be needed to implement the proposed project. Therefore, no impacts related to this issue would occur.

iii. Schools?

**No Impact:** The proposed project consists and drainage system improvements. The project does not include building residential units that would house school-age children. It is not anticipated that implementation of the proposed project would affect schools in the nearby area as the project is a roadway improvement and would not generate additional students.

iv. Parks?

**No Impact:** The proposed project does not include a residential component and would not contribute to a direct increase in population. As there is no direct increase in population resulting from the proposed project, no new demand on existing park facilities would occur. Therefore, no impacts associated with this issue would occur and no mitigation is necessary.

v. Other public facilities?

**No Impact:** The proposed project is a roadway improvement project and, as a result, would not cause an increase in population resulting in a significant impact on other public facilities such as libraries and hospital services. The proposed project would result in improved curbs, gutters, and sidewalks. These improvements would not result in adverse physical impacts as they would occur within an urbanized area of the City and have been planned for in the project design. No impact is identified.

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?

- [ ] Potentially Significant Impact
- [ ] Less than Significant Impact
- [✓] Less Than Significant With Mitigation Incorporated
- [ ] No Impact

**No Impact:** The proposed project is a roadway improvement project that would correct existing deficiencies in the area. The proposed project would not create additional demand on existing neighborhood or regional parks or on other recreational facilities. Therefore, no impacts would occur.
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 Impact
- Less Than Significant Impact
- Less Than Significant With Mitigation
- No Impact

**No Impact:** The project does not include recreational facilities or require the construction or expansion of recreational facilities. Therefore, no impacts would occur.

**XVI. TRANSPORTATION/TRAFFIC** -- Would the project:

a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?

- Potentially Significant Impact
- Less Than Significant Impact
- Less Than Significant With Mitigation
- No Impact

**Less Than Significant:** The proposed project would add some additional traffic along area roadways and potentially result in the temporary closure of some roadways during the construction phase. However, this traffic would be minimal and temporary in nature. A traffic control plan would be required for the construction phase of the proposed project, which would include traffic control measures to limit potential impacts to pedestrians and limit traffic impacts to the surrounding area. Victoria Avenue has been designated by the City as the primary passenger entryway into the San Bernardino International Airport from I-210. The project includes street widening on Victoria Avenue between 3rd Street and 9th Street to accommodate future traffic volumes. Additionally, 3rd Street and 5th Street have been designated by the City as prominent corridors with major gateways located at 3rd Street and Victoria Avenue and 5th Street and Palm Avenue. These corridors are to serve the future industrial/business park districts and provide access to the San Bernardino International Airport. The street improvements and upgrades would be consistent with the City's policies to handle increased traffic. The project will not create a significant direct increase in traffic volumes. Therefore, impacts are considered less than significant.

b) Exceed, either individually or cumulatively, a level of service standard established by the County congestion management agency for designated roads or highways?

- Potentially Significant Impact
- Less Than Significant Impact
- Less Than Significant With Mitigation
- No Impact
Less Than Significant Impact: The project does not include uses that would add additional operational vehicle trips on the surrounding roadways. Temporary construction traffic will result over a period of approximately 18 months. Therefore, the proposed project will have no direct or cumulative impact on the level of service standard established by the County for designated roads or highways, requiring payment into a Traffic Improvement Fee program.

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?

☐ Potentially Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☒ No Impact

No Impact: The proposed project is located within one-quarter mile of the San Bernardino International Airport. The project does not include construction of any structure equal to or greater than 150 feet in height, which would constitute a safety hazard to aircraft and/or operations from an airport or heliport. The project will not cause any changes to air traffic patterns which would result in substantial safety risks. Therefore, no impacts are identified for this issue area.

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 Impact
☒ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ No Impact

Less Than Significant: The proposed project will not alter operational traffic patterns, roadway design, place incompatible uses (e.g., farm equipment) on existing roadways, or create or place curves, slopes or walls which impedes adequate site distance on a road. The project only proposes road widening, upgrades to curbs and sidewalks, and associated drainage upgrades, which will improve safety conditions on the roadways. Therefore, impacts due to hazards associated with design features or incompatible uses are considered less than significant.

e) Result in inadequate emergency access?

☐ Potentially Significant Impact
☒ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated
☐ No Impact

Less Than Significant: The city would be required to maintain adequate emergency access and evacuation during all construction phases of the project. Construction
activities may result in temporary road closures. The proposed project design would be submitted to and approved by the City’s Fire and Police Departments prior the issuance of construction permits. Adherence to the standard emergency access measures required by the City would ensure no significant impact related to this issue would occur.

f) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

☐ Potentially Significant Impact  ☑ Less than Significant Impact
☐ Less Than Significant With Mitigation  ☐ No Impact

Less Than Significant Impact: The project will not conflict with any policies, plans or programs supporting alternative transportation. The project includes new sidewalks and street bike lanes in accordance with the City’s design standards. Any required improvements will be constructed to maintain existing conditions as it relates to pedestrians and bicyclists. The project area is serviced by Omnitrans for public transportation; State Route 15 services 5th Street between Palm Avenue and Central Avenue. Currently, no bus stops are located within the project boundaries.

XVII. UTILITIES AND SERVICE SYSTEMS -- Would the project:

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

☐ Potentially Significant Impact  ☐ Less than Significant Impact
☐ Less Than Significant With Mitigation  ☑ No Impact

No Impact: The proposed project is a roadway improvement project and would not generate wastewater. The proposed project would not exceed the wastewater treatment requirements of the Santa Ana Regional Water Quality Control Board (RWQCB). Therefore, no impact would occur.

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?

☐ Potentially Significant Impact  ☐ Less than Significant Impact
☐ Less Than Significant With Mitigation  ☑ No Impact

No Impact: Implementation of the proposed project would not require water or wastewater services. Because the proposed project would not require water or wastewater services, the construction of additional water or wastewater treatment
facilities or the expansion of existing facilities to serve the project would not occur. Therefore, no impacts associated with this issue would occur.

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 Impact  ☑ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated  ☐ No Impact

**Less Than Significant Impact:** The proposed project involves the expansion of storm water drainage facilities along Victoria Avenue from 3rd Street to 9th Street, regrading of 3rd Street near City Creek Overflow 1,200 feet west of Victoria Avenue, and a storm drain system extended easterly along 5th near Palm and East Valley Water District. As required by project components, the City will be required to obtain a Section 404, Dredge and Fill permit from the U.S. Army Corps of Engineers (ACOE), a Section1602, Streambed Alteration Agreement for the California Department of Fish and Game (CDFG); and a Section 7 - Consultation or Section 10a Incidental Take Permit from the U.S. Fish and Wildlife Services (USFWS).

Development of the proposed project will result in an increase in the amount of impermeable surfaces and, therefore, an increase in surface runoff. As previously stated, construction projects that disturb more than one acre require a general construction stormwater NPDES permit. Under the NPDES permits, project proponents are required to prepare an SWPPP. Adherence to BMPs specified in the SWPPP is expected to reduce potential water quality impacts associated with this issue to a less than significant level. Because the BMPs include features to mitigate potential impacts to water quality from project drainage, the construction, operation, and maintenance of the project drainage features, including features associated with the BMPs, will not result in significant impacts to water quality.

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

☐ Potentially Significant Impact  ☐ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated  ☑ No Impact

**No Impact:** The proposed project does not involve or require water services from a water district. The proposed project is a roadway improvement project that does rely on water service for any purpose. Therefore, no impacts due to sufficient water supply issues are identified.
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?

☐ Potentially Significant Impact  ☐ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated  ☑ No Impact

No Impact: The proposed project is a roadway improvement project and will not result in production of wastewater. Therefore, the project will not interfere with any wastewater treatment provider’s service capacity. No impacts are identified for this issue area.

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

☐ Potentially Significant Impact  ☐ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated  ☑ No Impact

No Impact: The proposed project will not generate any operational solid waste nor place any burden on the existing permitted capacity of any landfill or transfer station within San Bernardino County. During the process of the roadway widening, construction waste in the form of concrete, asphalt, or rebar would be generated. In accordance with the City’s Ordinances, the waste would be transported to the appropriate recycling facility or solid waste disposal site. No impacts are identified for this issue area.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

☐ Potentially Significant Impact  ☑ Less than Significant Impact
☐ Less Than Significant With Mitigation Incorporated  ☐ No Impact

Less Than Significant Impact: During the process of the roadway widening, construction waste in the form of concrete, asphalt, or rebar would be generated. In accordance with the City’s Ordinances, the waste would be transported to the appropriate recycling facility or solid waste disposal site. Because the proposed project would be required to adhere to federal, state, and local statutes and regulations concerning the disposal of bridge waste inclusive of construction and demolition waste generated during the removal of the existing bridge, impacts related to this issue would be reduced to a less than significant level.
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE:

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?

☑ Less Than Significant With Mitigation Incorporated
☑ Less than Significant Impact
☐ No Impact

Less Than Significant With Mitigation Incorporated: The proposed project does not impact or eliminate known important examples of the major periods of California history or prehistory. Although unlikely, it is possible the construction of the proposed project could unearth unknown buried cultural resources or human remains. Implementation of mitigation measures CR-1 and CR-2 will reduce this potentially significant impact to a level less than significant. Impacts related to this issue are considered to be less than significant with implementation of mitigation.

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 With Mitigation Incorporated
☑ Less than Significant Impact
☐ No Impact

Less Than Significant Impact With Mitigation Incorporated: The proposed project site is currently developed with a roadway structure and is in an urban setting. The project has the potential to result in both short term and long term impacts to the environment. Grading and related site preparation activities are expected to generate short term impacts. Implementation of the proposed project is not anticipated to result in direct long term environmental impacts. As discussed in the initial study, short term impacts are mitigated to a less than significant level. As such, impacts related to this issue are considered to be less than significant.

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

☑ Less Than Significant With Mitigation Incorporated
☑ Less than Significant Impact
☐ No Impact
Less Than Significant Impact With Mitigation Incorporated: Implementation of the proposed project may result in direct and indirect impacts to human beings, such as exposure to hazards associated with temporary air quality impacts, hazardous materials and listed sites as identified in Section VIII, Hazards and Hazardous Materials, and increased noise. However, based on the information provided, such impacts are anticipated to be less than significant due to adherence to standard requirements and Mitigation Measures AQ-1, NOS-1 through NOS-5, and HAZ-1 through HAZ-3.
References

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City of Highland, General Plan. http://www.ci.highland.ca.us/GeneralPlan/


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PCR Services Corporation, Phase I Archaeological and Paleontological Resources Assessment and Historic Resources Assessment/CEQA Impacts Analysis of the Proposed 3rd and 5th Street Improvements, September, 2009.

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San Bernardino International Airport, Airport Overlay Zone Map.


Santa Ana Watershed Project Authority (http://www.sawpa.org/documents/MapGallery/1441_Member_Agencies.pdf)


Uniform Building Code. (www.buildersbook.com)
U.S. Code of Federal Regulations, Federal Aviation Regulations (FAR), Objects Affecting Navigable Airspace, Title 14, Chapter 1, Part 77. (www.gpoaccess.gov)


APPENDIX A

Phase I Archaeological and Paleontological Resources Assessment and Historic Resources Assessment
PHASE I ARCHAEOLOGICAL AND PALEONTOLOGICAL RESOURCES ASSESSMENT AND HISTORIC RESOURCES ASSESSMENT/CEQA IMPACTS ANALYSIS OF THE PROPOSED 3RD AND 5TH STREET IMPROVEMENTS

SAN BERNARDINO COUNTY, CALIFORNIA

Redlands, CA 1967 (photo-revised 1988) USGS 7.5’ Quadrangle
Township 1 North, Range 3 West, Section 4 and 5

Project Acreage: 2.4 Linear Miles
Surveyed Acreage: 2.4 Linear Miles

Survey Conducted: August 27, 2009
Report Completed: September 23, 2009

Resources Identified: None
Phase I Archaeological and Paleontological Resources Assessment and Historic Resources Assessment/ CEQA Impacts Analysis of the Proposed 3rd and 5th Street Improvements

San Bernardino County, California

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Jon Wilson, M.Arch., *Senior Architectural Historian*

Redlands, CA 1967 (photo-revised 1988) USGS 7.5’ Quadrangle
Township 1 North, Range 3 West, Section 4 and 5

Project Acreage: 2.4 Linear Miles
Surveyed Acreage: 2.4 Linear Miles

Survey Conducted: August 17 and 27, 2009
Report Completed: September 23, 2009

Resources Identified: None
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EXECUTIVE SUMMARY

PROJECT BACKGROUND AND UNDERTAKING

The City of Highland is proposing to make roadway improvements along a 2.4 mile segment of 3rd and 5th Streets using Inland Valley Development Agency (IVDA) funds. These improvements will consist of widening the road, reconstructing the pavement, adding new sidewalks, curb and gutter system, drainage system, and retaining walls.

SCOPE AND METHODOLOGY

PCR Services Corporation (PCR) conducted a Phase I archaeological and paleontological resources assessment of the study area from August 2009 through September 2009. This assessment was conducted by PCR to determine the potential impacts to archaeological and paleontological resources associated with the proposed project for the purpose of complying with the California Environmental Quality Act (CEQA) and the County of San Bernardino General Plan. PCR personnel also conducted a Historic Resources Assessment and CEQA Impacts Analysis of the study area from August 2009 to September 2009. The purpose of the assessment and impacts analysis is to identify and evaluate historical resources that may be affected by the implementation of the proposed project. This report was prepared to comply with the California Environmental Quality Act (CEQA), to assess the existing buildings within the property site and neighboring parcels for eligibility as historical resources, and to analyze the potential impacts of the proposed road-widening project on potential historical resources.

The scope of work for this assessment included a cultural resources records search through the California Historical Resources Information System-San Bernardino Archaeological Information Center (CHRIS-SBAIC), a Sacred Lands File (SLF) search through the California Native American Heritage Commission (NAHC) and follow-up Native American consultation, a paleontological records search through the San Bernardino County Museum (SBCM), and a pedestrian survey of the study area for archaeological and paleontological resources.

RESULTS AND RECOMMENDED MITIGATION

Archaeological Resources

Results of the cultural resources records search revealed that one prehistoric resource and 27 historic period resources were previously recorded within a one-half mile radius of the study area. Resource P-36-002313 is located approximately one-half mile north of the study area and is described as a village site where Native Americans living in the area were driven off by armed men who wanted to take control of the land (Smith 1938). This resource, along with most other
resources identified within a one-half mile radius are located far enough away from the study area and will not be impacted by implementation of the proposed project. However, two historic period resources were identified within the project boundaries and these are P-36-010820 and P-36-006848. P-36-010820 is located along Victoria Avenue along the northeastern portion of the study area and is described as the buried and exposed portions of the Arrowhead and Waterman Railroad, which is also known as the Harlem Motor Road Line (Campbell 2002). P-36-006848 is situated along multiple portions of the study area and is described as a water transportation site known as the Cram-Van Leuven Ditch (Romani 1990). As a result of the close proximity of P-36-010820 and P-36-006848 to the study area, these two historic sites may be impacted by implementation of the proposed project. The NAHC SLF records search results did not indicate any known Native American cultural resources within a one-half mile radius of the study area. Numerous archaeological surveys have been conducted within the immediate vicinity of the study area (covering approximately 50 percent of the one-half mile radius surrounding the study area) that has yielded positive results. However, the majority of the study area had not been surveyed by an archaeologist prior to PCR’s assessment.

No archaeological resources were identified during PCR’s pedestrian survey of the study area. PCR surveyed 100 percent of the study area; however, the majority of the study area is heavily disturbed by the construction of single family homes, commercial buildings, asphalt-paved roads, sidewalks, and landscaping. Given the heavily disturbed context of the study area and the nature of the proposed project, it is unlikely that implementation of the proposed project will impact previously unknown archaeological resources. Any unknown archaeological resources that may have existed prior to the disturbances are likely to have been displaced. However, as mentioned above, a few small areas of the study area contain known buried resources associated with P-36-010820 and P-36-006848 and may be impacted during the implementation of the proposed project. As a result, the overall sensitivity of the study area with respect to buried resources appears to be low to moderate.

Given the low to moderate potential for buried historic and archaeological resources that may qualify as eligible for the National Register or California Register and/or as significant resources pursuant to CEQA, archaeological monitoring is not recommended during implementation of the proposed project. However, the following mitigation measures are recommended to identify, evaluate, and recover cultural resources that are accidentally encountered during implementation of the proposed project.

1. If archaeological resources associated with P-36-010820 and P-36-006848 or otherwise are encountered during implementation of the project, ground-disturbing activities should temporarily be redirected from the vicinity of the find. The Applicant should immediately notify a qualified archaeologist of the find. The archaeologist should coordinate with the Applicant as to the immediate treatment of the find until a proper site visit and evaluation is made by the archaeologist. The archaeologist shall be allowed to temporarily divert or redirect grading or excavation
activities in the vicinity in order to make an evaluation of the find and determine appropriate treatment. Treatment will include the goals of preservation where practicable and public interpretation of historic and archaeological resources. All cultural resources recovered will be documented on California Department of Parks and Recreation Site Forms to be filed with the CHRIS-SBAIC. The archaeologist shall prepare a final report about the find to be filed with the Applicant, Lead Agency, and the CHRIS-SBAIC, as required by the California Office of Historic Preservation. The report shall include documentation and interpretation of resources recovered. Interpretation will include full evaluation of the eligibility with respect to the National and California Register of Historic Places and CEQA. The report shall also include all specialists’ reports as appendices. The Lead Agency shall designate repositories in the event that significant resources are recovered. The archaeologist shall also determine the need for archaeological monitoring for any ground-disturbing activities thereafter.

2. If human remains are encountered unexpectedly during construction excavation and grading activities, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the California Native American Heritage Commission (NAHC). The NAHC will then identify the person(s) thought to be the Most Likely Descendent of the deceased Native American, who will then help determine what course of action should be taken in dealing with the remains.

With the implementation of the above mitigation measures, impacts to archaeological resources from the proposed project will be considered less than significant.

**Historical Resources**

Results of the records search, which included review of the National Register of Historic Places (National Register), California Register of Historic Places (California Register), California Historic Resources Inventory (HRI), California Points of Historical Interest (PHI), the California Historical Landmarks (CHL), and the City of Highland Historic and Cultural inventory, indicated that there was one existing historical resource outside of the proposed project area, but within a half-mile radius of the study area. Three properties outside of the proposed project area, but within a half-mile radius of the study area were determined not eligible for listing or designation. In addition, just outside the project area at 27136 3rd Street, PCR identified a rare extant two-story American Colonial Revival residence with high integrity associated with the agricultural-era of the City of Highland. The residence appears to meet the eligibility thresholds for designation as a historical resource at the federal, state, and local level. Located outside the study area, the residence at 27136 3rd Street is not indirectly impacted by the
proposed project. As a result, the proposed project will have no impact to significant historical resources and no further work is needed.

**Paleontological Resources**

Results of the paleontological resources records search through the SBCM indicates that the study area is situated upon superficial deposits of latest Holocene younger axial-valley alluvium as well as recent wash alluvium. According to the SBCM, these types of deposits do not contain significant nonrenewable paleontological resources. Also, no previously-known paleontological resource localities were found within a one-mile radius of the study area. However, these Holocene sediments may overlie subsurface Pleistocene older alluvium and these can contain significant Pleistocene vertebrate fossils. Shallow earth moving operations in the younger Holocene alluvium within the study area are unlikely to reveal significant vertebrate fossils. On the other hand, deeper excavations that extend into the older Pleistocene deposits may well be expected to encounter significant remains of fossil vertebrates.

As a result of these findings, the paleontological sensitivity of the study area is considered to be low. No paleontological resources were identified on the surface during the pedestrian survey and although the results of the records search suggest that they may exist within the study area, it also suggests that they will only be present at great depths. As a result, the proposed project will have no impact to significant paleontological resources and no further work is needed. These measures are consistent with the recommendations set forth by the LACM in the records search results (see Appendix C):

**Native American Consultation**

As per NAHC suggested procedure, follow-up letters were sent via certified mail on August 27, 2009 to the ten Native American individuals and organizations identified by the NAHC as being affiliated with the vicinity of the study area to request any additional information or concerns they may have about Native American cultural resources that may be affected by the proposed project. As of September 23, 2009, PCR has received one letter response from the Soboba Cultural Resources Department and a phone call from Pechanga Cultural Resources (see Appendix D) regarding this proposed project. Both the Soboba and Pechanga Bands have deferred to the San Manuel Band of Mission Indians. In addition, a follow-up phone call was made to the San Manuel Band of Mission Indians (See Appendix D). PCR will keep the County apprised with the progress of this on-going Native American consultation.
1.0 INTRODUCTION

1.1 PROJECT UNDERTAKING AND LOCATION

The Inland Valley Development Agency (IVDA) is proposing to make some roadway improvements along 3rd and 5th Streets in the City of Highland along a 2.4 mile segment. These improvements will consist of widening the road, reconstructing the pavement, adding new sidewalks, curb and gutter system, drainage system and retaining walls.

The study area is located west of the 5th Street exit of the Foothill Freeway (CA-210) immediately north of the San Bernardino Airport in the City of Highland, San Bernardino County (Figure 1, Regional Map, on page 2). It is depicted on the United States Geological Survey (USGS) 1967 (photo-revised 1988) 7.5’ Redlands, CA topographic quadrangle map in Section 4 and 5 of Township 1 North, Range 3 West (Figure 2, Vicinity Map, on page 3). The study area is bounded on the north by 9th Street, the south by 3rd Street, the west by Victoria Avenue and the east by the Foothill Freeway (Figure 3, Aerial Photograph, on page 4).

1.2 SCOPE OF STUDY AND PERSONNEL

PCR personnel conducted a Phase I archaeological and paleontological resources assessment of the study area from August 2009 to September 2009. This assessment was conducted by PCR to determine the potential impacts to archaeological and paleontological resources associated with the proposed project for the purpose of complying with CEQA and the County of San Bernardino General Plan.

PCR personnel also conducted a Historic Resources Assessment and CEQA Impacts Analysis of the study area from August 2009 to September 2009. The purpose of the assessment and impacts analysis is to identify and evaluate historical resources that may be affected by the implementation of the proposed project. This report was prepared to comply with the California Environmental Quality Act (CEQA), to assess the existing buildings within the property site and neighboring parcels for eligibility as historical resources, and to analyze the potential impacts of the proposed road-widening project on potential historical resources. The scope of work for this assessment included a cultural resources records search through the CHRIS-SBAIC, a SLF search through the NAHC and follow-up Native American consultation, a paleontological records search through the SBCM, and a pedestrian survey of the study area for archaeological, paleontological, and historical resources. This report presents the findings of this in-depth archaeological, paleontological, and historical resources assessment and is intended to satisfy the cultural resource needs of CEQA. Personnel involved in this assessment included PCR archaeologists Kyle Garcia and Matthew Gonzalez and Senior Architectural Historian, Jon L. Wilson. The Phase I report was compiled by Mr. Gonzalez and Mr. Wilson. Project management was overseen by Mr. Garcia. Personnel qualifications are provided in Appendix A.
Figure 2
3rd and 5th Street Improvement Project
Location Map

Source: USGS Topographic Series (Redlands, Harrison Mountain, CA); PCR Services Corporation, 2009.
Figure 3
3rd and 5th Street Improvement Project
Aerial Photograph

Source: AirPhoto, 2007; PCR Services Corporation, 2009.

Study Area
2.0 REGULATORY SETTING

Numerous laws and regulations require federal, state, and local agencies to consider the effects of a proposed project on cultural resources. These laws and regulations stipulate a process for compliance, define the responsibilities of the various agencies proposing the action, and prescribe the relationship among other involved agencies (e.g., State Historic Preservation Office and the Advisory Council on Historic Preservation). The primary federal and state laws governing and affecting preservation of cultural resources of national, state, regional, and local significance include the National Historic Preservation Act (NHPA) of 1966, as amended, CEQA, the California Register of Historical Resources, Public Resources Code (PRC) 5024, and other applicable local regulations. For purpose of this assessment, a brief description of the State and local laws and regulations is provided below.

2.1 FEDERAL LEVEL

2.1.1 National Register of Historic Places

The National Register of Historic Places (National Register) was established by the National Historic Preservation Act of 1966, as “an authoritative guide to be used by Federal, State, and local governments, private groups and citizens to identify the Nation’s cultural resources and to indicate what properties should be considered for protection from destruction or impairment.”\(^1\) The National Register recognizes properties that are significant at the national, state, and/or local levels.

To be eligible for listing in the National Register, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Four criteria for evaluation have been established to determine the significance of a resource:

A. It is associated with events that have made a significant contribution to the broad patterns of our history;

B. It is associated with the lives of persons significant in our past;

C. It embodies the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that

\(^1\) 36 Code of Federal Regulations (CFR) Section 60.2.
represent a significant and distinguishable entity whose components may lack individual distinction;

D. It yields, or may be likely to yield, information important in prehistory or history.²

Districts, sites, buildings, structures, and objects of potential significance that are 50 years in age must meet one or more of the above criteria.

In addition to meeting the Criteria for Evaluation, a property must have integrity. “Integrity is the ability of a property to convey its significance.”³ According to National Register Bulletin 15 (NRB), the National Register recognizes seven aspects or qualities that, in various combinations, define integrity: location, design, setting, materials, workmanship, feeling, and association. In assessing a property's integrity, the National Register criteria recognize that properties change over time, therefore, it is not necessary for a property to retain all its historic physical features or characteristics. The property must retain, however, the essential physical features that enable it to convey its historic identity.⁴

For properties that are considered significant under National Register Criteria A and B, the National Register Bulletin, How to Apply the National Register Criteria for Evaluation states that a property that is significant for its historic association is eligible if it retains the essential physical features that made up its character or appearance during the period of its association with the important event, historical pattern, or person(s).⁵

In assessing the integrity of properties that are considered significant under National Register Criterion C, the National Register Bulletin, How to Apply the National Register Criteria for Evaluation provides that a property important for illustrating a particular architectural style or construction technique must retain most of the physical features that constitute that style or technique.⁶

³ National Register Bulletin 15, p. 44.
⁴ “A property retains association if it is the place where the event or activity occurred and is sufficiently intact to convey that relationship to an observer. Like feeling, association requires the presence of physical features that convey a property’s historic character. Because feeling and association depend on individual perceptions, their retention alone is never sufficient to support eligibility of a property for the National Register.” Ibid, 15, p. 46.
⁵ Ibid.
⁶ “A property that has lost some historic materials or details can be eligible if it retains the majority of the features that illustrate its style in terms of the massing, spatial relationships, proportion, pattern of windows and
2.2 STATE LEVEL

2.2.1 California Register of Historical Resources

The California Office of Historic Preservation (OHP), as an office of the California Department of Parks and Recreation, implements the policies of the NHPA on a statewide level. The OHP also maintains the California Historic Resources Inventory. The State Historic Preservation Officer (SHPO) is an appointed official who implements historic preservation programs within the State’s jurisdictions.

Created by Assembly Bill 2881 which was signed into law on September 27, 1992, the California Register of Historical Resources (California Register) is “an authoritative listing and guide to be used by state and local agencies, private groups, and citizens in identifying the existing historical resources of the state and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change.” The criteria for eligibility for the California Register are based upon National Register criteria. Certain resources are determined by the statute to be automatically included in the California Register, including California properties formally determined eligible for, or listed in, the National Register of Historic Places (National Register).

To be eligible for the California Register, a prehistoric or historic property must be significant at the local, state, and/or federal level under one or more of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

A resource eligible for the California Register must meet one of the criteria of significance described above and retain enough of its historic character or appearance (integrity)

doors, texture of materials, and ornamentation. The property is not eligible, however, if it retains some basic features conveying massing but has lost the majority of the features that once characterized its style.” Ibid.

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7 California Public Resources Code § 5024.1(a).
8 California Public Resources Code § 5024.1(b).
9 California Public Resources Code § 5024.1(d).
to be recognizable as a historical resource and to convey the reason for its significance. It is possible that a historic resource may not retain sufficient integrity to meet the criteria for listing in the National Register, but it may still be eligible for listing in the California Register.

Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association. The resource must also be judged with reference to the particular criteria under which it is proposed for eligibility.\textsuperscript{10}

Additionally, the California Register consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The California Register automatically includes the following:

- California properties listed on the National Register and those formally Determined Eligible for the National Register.
- California Registered Historical Landmarks from No. 770 onward.
- Those California Points of Historical Interest that have been evaluated by the OHP and have been recommended to the State Historical Commission for inclusion on the California Register.

Other resources that may be nominated to the California Register include:

- Historical resources with a significance rating of Category 3 through 5.\textsuperscript{11}
- Individual historical resources.
- Historical resources contributing to historic districts.
- Historical resources designated or listed as local landmarks, or designated under any local ordinance, such as an historic preservation overlay zone.

\textbf{2.2.2 California Environmental Quality Act (Archaeological Resources)}

CEQA is the principal statute governing environmental review of projects occurring in the State. CEQA requires lead agencies to determine if a proposed project would have a significant effect on archaeological resources (PRC Sections 21000 \textit{et seq.}). As defined in

\textsuperscript{10} \textit{Ibid.}

\textsuperscript{11} Those properties identified as eligible for listing in the National Register of Historic Places, the California Register of Historical Resources, and/or a local jurisdiction register.
Section 21083.2 of the PRC a “unique” archaeological resource is an archaeological artifact, object, or site, about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information.

- Has a special and particular quality such as being the oldest of its type or the best available example of its type.

- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

In addition, CEQA Section 15064.5 broadens the approach to CEQA by using the term “historical resource” instead of “unique archaeological resource.” The CEQA Guidelines recognize that certain historical resources may also have significance. The Guidelines recognize that a historical resource includes: (1) a resource in the California Register of Historical Resources; (2) a resource included in a local register of historical resources, as defined in PRC §5020.1 (k) or identified as significant in a historical resource survey meeting the requirements of PRC §5024.1 (g); and (3) any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California by the lead agency, provided the lead agency’s determination is supported by substantial evidence in light of the whole record.

If a lead agency determines that an archaeological site is a historical resource, the provisions of §21084.1 of the PRC and §15064.5 of the Guidelines apply. If an archaeological site does not meet the criteria for a historical resource contained in the Guidelines, then the site is to be treated in accordance with the provisions of PRC §21083, which is a unique archaeological resource. The Guidelines note that if an archaeological resource is neither a unique archaeological nor a historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment. (Guidelines §15064.5(c)(4)).

2.2.3 California Environmental Quality Act (Historical Resources)

Under CEQA, a “project that may cause a substantial adverse change in the significance of a historic resource is a project that may have a significant effect on the environment.” This statutory standard involves a two-part inquiry. The first involves a determination of whether the project involves a historic resource. If so, then the second part involves determining whether the

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12 California Public Resources Code, Section 21084.1.
project may involve a “substantial adverse change in the significance” of the resource. To address these issues, guidelines that implement the 1992 statutory amendments relating to historical resources were adopted on October 26, 1998 with the addition of State CEQA Guideline Section 15064.5. The State CEQA Guidelines 15064.5 provides that for the purposes of CEQA compliance, the term “historical resources” shall include the following: ¹³

- A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register.

- A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code or identified as significant in a historical resource survey meeting the requirements in Section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat such resources as significant for purposes of CEQA unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

- Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency’s determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be ‘historically significant’ if the resource meets one of the criteria for listing on the California Register.

- The fact that a resource is not listed in, or determined to be eligible for listing in the California Register, not included in a local register of historical resources (pursuant to Section 5020.1(k) of the Public Resources Code), or identified in a historical resources survey (meeting the criteria in Section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be a historical resource as defined in Public Resources Code Sections 5020.1(j) or 5024.1.

### 2.2.4 Paleontological Resources

Paleontological resources are also afforded protection by environmental legislation under CEQA. Appendix G (part V) of the CEQA Guidelines provides guidance relative to significant impacts on paleontological resources, which states, “a project will normally result in a significant impact on the environment if it will … disrupt or adversely affect a paleontological resource or site or unique geologic feature, except as part of a scientific study.” Section 5097.5 of the PRC

¹³  State CEQA Guidelines, 14 CCR Section 15064.5(a).
specifies that any unauthorized removal of paleontological remains is a misdemeanor. Further, the California Penal Code Section 622.5 sets the penalties for damage or removal of paleontological resources.

2.3 LOCAL LEVEL

2.3.1 City of Highland General Plan

Adopted in 1987, the City of Highland’s General Plan recognizes the CEQA Guidelines Section 15064.5 as a threshold for the identification and protection of cultural and paleontological resources, as well as the determination of significant impacts on those resources. Goal 5.8 of the Conservation and Open Space Element has a set of policies to “protect, document, and minimize disruption of sites that have archaeological significant:”

1. Avoid significant impacts in all new developments within areas determined to be archaeologically sensitive through the following measures:
   
   - Conduct an archaeological records search with the Archaeological Information Center in order to identify potential on-site sensitivities;
   
   - In cooperation with a qualified archaeologist, develop mitigation measures for projects found to be located in or near sensitive areas or sites; and
   
   - Require that environmental review be conducted for all applications within the area designated as archaeologically sensitive, including but not limited to grading, earth moving and stockpiling, and building and demolition permits.

2. Include the following statement as a condition of approval on all development projects:

   “If cultural resources are discovered during project construction, all work in the area of the find shall cease, and a qualified archaeologist shall be retained by the project sponsor to investigate the find, and to make recommendations on its disposition. If human remains are encountered during construction, all work shall cease and the San Bernardino County Coroner’s Office shall be contacted pursuant to Health and Safety Code provisions.”

3. Coordinate with the San Manuel Band of Mission Indians when proposals for development projects are filed within the Areas of Sensitivity for Archaeological Resources through the following actions:
• Notify the San Manuel Band of Mission Indians via notification mailings about proposed projects in archaeologically sensitive areas; and

• Invite comments and suggestions to be forwarded to City staff and appropriate decision makers to aid the preservation and development review processes.

2.3.2 City of Highland Municipal Code

16.32.050 Cultural Resource Designation Criteria.

An improvement, natural feature, or site may be nominated as a cultural resource by the historic and cultural preservation board pursuant to HMC 16.32.060 if it meets the criteria for listing on the National Register of Historic Places or the following:

A. It exemplifies or reflects special elements of the city’s cultural, social, economic, political, aesthetic, engineering, architectural, or natural history;

B. It is identified with persons or events significant in local, state, or national history;

C. It embodies distinctive characteristics of a style, type, period, or method of construction, or is a valuable example of the use of indigenous materials or craftsmanship;

D. It is representative of the work of a notable builder, designer, or architect;

E. It contributes to the significance of an historic area, being a geographically definable area possessing a concentration of historic or scenic properties or thematically related grouping of properties which contribute to each other and are unified aesthetically by plan or physical development;

F. It has a unique location or singular physical characteristics or is a view or vista representing an established and familiar visual feature of a neighborhood, community, or the city of Highland;

G. It embodies elements of architectural design, detail, materials, or craftsmanship that represent a significant structural or architectural achievement or innovation;

H. It is similar to other distinctive properties, sites, areas, or objects based on a historic cultural, or architectural motif.

I. It reflects significant geographical patterns, including those associated with different eras of settlement and growth, particular transportation modes, or distinctive examples of park or community planning.
2.0 Regulatory Setting

J. It is one of the few remaining examples in the city, region, state, or nation possessing distinguishing characteristics of an architectural or historical type of specimen. (Ord. 171 § 8.50, 1994)

2.3.2 County of San Bernardino General Plan

At the local government level, relevant regulations include the County of San Bernardino’s General Plan, which also recognizes the CEQA Guidelines Section 15064.5 as a threshold for the identification and protection of cultural and paleontological resources, as well as the determination of significant impacts on those resources. Adopted in 2007, the San Bernardino County General Plan states that “The County will preserve and promote its historic and prehistoric cultural heritage” and outlines this statement with the following Goals (CO 3):

CO 3.1: Identify and protect important archaeological and historic cultural resources in areas of the County that have been determined to have known cultural resource sensitivity.

CO 3.2: Identify and protect important archaeological and historic cultural resources in all lands that involves disturbance of previously undisturbed ground.

CO 3.3: Establish programs to preserve the information and heritage value of cultural and historical resources.

CO 3.4: The County will comply with Government Code Section 65352.2 (SB 18) by consulting with tribes as identified by the California Native American Heritage Commission on all General Plan and specific plan actions.

CO 3.5: Ensure that important cultural resources are avoided or minimized to protect Native American beliefs and traditions.
3.0 ENVIRONMENTAL SETTING

The study area is located along the western banks of Santa Ana River Floodway and is characterized by relatively flat topography throughout. The majority of the study area is developed with disturbances that include the existing single family homes, commercial buildings and associated landscaping and paved parking lots, and paved roads.

Elevation of the study area ranges from approximately 1047 to 1134 feet above mean sea level (amsl). The soil within the study area and surrounding vicinity has consists of sandy wash alluvium from the Santa Ana River Floodway.
4.0 CULTURAL SETTING

4.1 PREHISTORIC BACKGROUND

Prehistory is most easily discussed chronologically, in terms of environmental change and recognized cultural developments. Several chronologies have been proposed for inland Southern California, the most widely accepted of which is Wallace’s four-part Horizon format (1955), which was later updated and revised by Claude Warren (1968). The advantages and weaknesses of Southern California chronological sequences are reviewed by Warren (in Moratto 1984), Chartkoff and Chartkoff (1984), and Heizer (1978). The following discussion is based on Warren’s (1968) sequence, but the time frames have been adjusted to reflect more recent archaeological findings, interpretations, and advances in radiocarbon dating.

4.1.1 Paleoindian Period (ca. 13,000-11,000 years before present [YBP])

Little is known of Paleoindian peoples in inland southern California, and the cultural history of this period follows that of North America in general. Recent discoveries in the Americas have challenged the theory that the first Americans migrated from Siberia, following a route from the Bering Strait into Canada and the Northwest Coast some time after the Wisconsin Ice Sheet receded (ca. 14,000 YBP), and before the Bering Land Bridge was submerged (ca. 12,000 YBP). A coastal migration route somewhat before that time is also possible. The timing, manner, and location of this crossing are a matter of debate among archaeologists, but the initial migration probably occurred as the Laurentide Ice Sheet melted along the Alaskan Coast and interior Yukon. The earliest radiocarbon dates from the Paleoindian Period in North America come from the Arlington Springs Woman site on Santa Rosa Island. These human remains date to approximately 13,000 YBP (Johnson et al. 2002). Other early Paleoindian sites include the Monte Verde Creek site in Chile (Meltzer et al. 1997) and the controversial Meadowcroft Rockshelter in Pennsylvania. Both sites have early levels dated roughly at 12,000 YBP. Lifeways during the Paleoindian Period were characterized by highly mobile hunting and gathering. Prey included megafauna such as mammoth and technology included a distinctive flaked stone toolkit that has been identified across much of North America and into Central America. They likely used some plant foods, but the Paleoindian toolkit recovered archaeologically does not include many tools that can be identified as designed specifically for plant processing.

The megafauna that appear to have been the focus of Paleoindian lifeways went extinct during a warming trend that began approximately 10,000 years ago, and both the extinction and climatic change (which included warmer temperatures in desert valleys and reduced precipitation...
in mountain areas) were factors in widespread cultural change. Subsistence and social practices continued to be organized around hunting and gathering, but the resource base was expanded to include a wider range of plant and game resources. Technological traditions also became more localized and included tools specifically for the processing of plants and other materials. This constellation of characteristics has been given the name “Archaic” and it was the most enduring of cultural adaptations to the North American environment.

4.1.2 Archaic Period (ca. 11,000-3,500 YBP)

The earliest Archaic Period lifeways in inland southern California have been given the name San Dieguito tradition, after the San Diego area where it was first identified and studied (Warren 1968). Characteristic artifacts include stemmed projectile points, crescents and leaf-shaped knives, which suggest a continued subsistence focus on large game, although not megafauna of the earlier Paleoindian period. Milling equipment appears in the archaeological record at approximately 7,500 years ago (Moratto 1984:158). Artifact assemblages with this equipment include basin milling stones and unshaped manos, projectile points, flexed burials under cairns, and coggd stones, and have been given the name La Jolla Complex (7,500–3,000 YBP). The transition from San Dieguito lifeways to La Jolla lifeways appears to have been an adaptation to drying of the climate after 8,000 YBP, which may have stimulated movements of desert peoples to the coastal regions, bringing milling stone technology with them. Groups in the coastal regions focused on mollusks, while inland groups relied on wild-seed gathering and acorn collecting.

4.1.3 Late Prehistoric Period (ca. 3,500 YBP-A.D. 1769)

Cultural responses to environmental changes around 4,000–3,000 YBP included a shift to more land-based gathering practices. This period was characterized by the increasing importance of acorn processing, which supplemented the resources from hunting and gathering. Meighan (1954) identified the period after A.D. 1400 as the San Luis Rey complex. San Luis Rey I (A.D. 1400–1750) is associated with bedrock mortars and milling stones, cremations, small triangular projectile points with concave bases and Olivella beads. The San Luis Rey II (A.D. 1750–1850) period is marked by the addition of pottery, red and black pictographs, cremation urns, steatite arrow straighteners and non-aboriginal materials (Meighan 1954:223, Keller and McCarthy 1989:6). Work at Cole Canyon and other sites in Southern California suggests that this complex, and the ethnographically described life ways of the native people of the region, were well established by at least 1,000 YBP (Keller and McCarthy 1989:80).

4.1.4 Ethnographic Context

As the study area lies in an environmental contact zone between mountain and desert regions, it also lies near the contact of several ethnographically documented Native American territories. Information presented in the California volume of the Handbook of North American
Indians (Heizer 1978:575) shows the study area in the south central portion of Cahuilla territory near the territory of the Serrano and Luiseño. The Cahuilla shared a common belief with the Gabrielino, Serrano and Luiseño. It is believed that these groups interacted with one another through marriage, trade, war and ritual.

The origin of the name Cahuilla is unclear. Some researchers believe that the name signifies ‘masters,’ although this has not been verified (Kroeber 1925:693). The Cahuilla occupied the areas of the summit of the San Bernardino Mountains, Borrego Springs, Chocolate Mountains, a section of the Colorado Desert, the San Jacinto Plain and the eastern slopes of the Palomar Mountains. The Cahuilla spoke a language that belongs to the Cupan subgroup of the Takic family of the Uto-Aztecan stock. The villages of the Cahuilla were located in canyons or on alluvial fans where water and food sources were easily attainable (Heizer 1978:575).

Cahuilla society was organized through patrilineal moieties or patrilineal lines of descent. Clans also existed and these were associated with regions or they were named after places. The Cahuilla were also involved in pottery manufacture. They relied on the coiling method and smoothing of unslipped ware to make their pottery. Crushed rock was utilized to produce temper, which was thin walled and fragile (Kroeber 1925:693).

The term Luiseño derives from the mission named San Luis Rey and has been used in the region to refer to those Takic-speaking people associated with Mission San Luis Rey (Bean and Shipek 1978:550). The Luiseño shared boundaries with the Cahuilla, Cupeño, Gabrielino, and Ipai peoples on the east, north, and south, respectively. These different bands shared cultural and language traditions with the Luiseño. The Luiseño territory comprised from the coast to Agua Hedionda Creek on the south to near Aliso Creek on the northwest. The boundary extended inland to Santiago Peak, then across to the eastern side of Elsinore Fault Valley, then southward to the east of Palomar Mountain, then around the southern slope above the valley of San Jose (ibid.:550). Their habitat covered every ecological zone from the ocean, sandy beaches, shallow inlets, coastal chaparral, grassy valleys oak groves, among various other niches. The primary food source consisted of game animals such as deer, rabbit, jackrabbit, woodrat, mice, ground squirrels, antelope, and various species of birds. Next to game animals, acorns were the most single important staple, and six different species were utilized (ibid.:552).

The Luiseño social structure is unclear; however, each village was a clan-triblet—a group of people patrilineally related who owned an area in common and who were politically and economically autonomous from neighboring groups. The Luiseño were not organized into exogamous moieties such as were their neighbors, Cahuilla, Cupeño, and Serrano (Strong 1929:291). The hereditary village chief held an administrative position that combined and controlled religious, economic, and warfare powers (Boscana 1933:43). Marriage was arranged by the parents of children and important lineages were allied through marriage. Reciprocally
useful alliances were arranged between groups in different ecological niches, and became springboards of territorial expansion, especially following warfare and truces (White 1963:130).

4.2 HISTORIC BACKGROUND

4.2.1 Early Settlement of the San Bernardino Valley

The San Bernardino Valley has a long history of settlement due in part to its landscape of plentiful small streams and open grasslands. Although Spain had claimed California as part of their colony since the sixteenth century, the first Spaniard to travel to the area of the site was Pedro Fages in 1772. Spanish soldiers and missionaries continued to travel through the area on their way to visit various missions and outposts in the vicinity. In the beginning of the nineteenth century, some Spaniards who had worked at the missions began to set up what would later be known as the “Ranchos.” The Rancho era in California history was the period when the entire state was divided into large parcels of land equaling thousands of acres apiece. These large estates were ruled over in a semi-feudal manner by men who had been deeded the land by the first the Spanish crown, and later the Mexican government. In 1821 Mexico won independence from Spain and began to dismantle the mission system in California. As the missions began to secularize, they were transformed into small towns. It was during this time that “Americans” began to enter California. Many of the American Californians married into the Rancho families, a development that would transform land ownership in Mexican California. By the time the United States annexed California after the Mexican-American War, much of the Rancho lands were already in the hands of Americans.

The San Bernardino Rancho, used for cattle and horse racing, was given to three brothers of the Lugo family and Diego Sepulveda in 1842.14 Eight years later, the Lugos sold a portion of the San Bernardino Rancho to a group of approximately eight-hundred Mormons who wanted to create a colony. They subdivided the land into five to ninety acre parcels for the public to purchase. In 1853, the City of San Bernardino was surveyed and the State legislature created the County of San Bernardino under which the City of San Bernardino was the county seat. In 1857 the Mormon colony was recalled by Brigham Young, thus the land was sold off. By the early 19th century, the City of San Bernardino became a major agricultural area.

4.2.2 City of Highland

Located east of the City of San Bernardino and west of the City of Redlands, the City of Highland was named after its altitude and proximity to mountains. Like many communities in the San Bernardino valley, the early history of the City of Highland is connected to the

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14 Hale, Edson. The County Of San Bernardino, California, And Its Principal City: A Descriptive And HistoricalSketch. San Bernardino, Calif.: Board of Trade, 1888, pgs. 8-12.
development of agriculture and in particular citrus orchards. In 1858, the Cram and Van Luevan families attempted to establish an agricultural settlement. The families constructed an irrigation ditch to bring water from the Santa Ana River to their lands in the East Highlands. The successful completion of the North Fork Ditch, which was constructed in 1881, initiated the transformation of the dry and arid planes of Highland into a rich and thriving agricultural landscape. Agricultural development increased throughout the late nineteenth century and the early twentieth century, primarily with the planting of citrus orchards. Because the local economy was primarily agricultural, the new community depended on the citrus orchards and their associated packing houses for its livelihood. As a result of the regional prosperity generated by citrus production, the City of Highland townsite was surveyed in 1891 and recorded in 1893.

The construction of a rail line connecting Highland to San Bernardino and Redlands during the 1890s brought new agricultural industries to Highland, in addition to packing houses. The rail line was acquired by the Pacific Electric Railway in 1911 and passenger service was added. The rail line facilitated the population growth of Highland, which grew to one thousand by 1903. “Cole’s Addition,” an area around the intersection of Palm Avenue and Pacific Street, was added to the townsite during the first decade of the twentieth century.

The City of Highland continued to grow throughout the 1920’s fueled by agriculture and the railroad. Like most of the country the 1929 stock market crash negatively impacted the City of Highland resulting in the failure of many important businesses. By the mid-1930s, the combination of the loss of the Pacific Railway, the sale of a local bank and the citrus freeze of 1937 sent the local economy into a depression. During the 1940s the area started to suburbanize and has steadily continued its suburban growth supplanting the once thriving citrus orchards.

4.2.3 Site Specific History

The area of the proposed project was once agricultural. Beginning in the postwar era, citrus orchards were replaced with tract housing as the region transformed from agriculture to suburbanization. Directly south of the proposed project is the San Bernardino International Airport on the former site of the San Bernardino Army Air Depot, which was constructed in 1943. There are some remaining highly altered residences from the height of the agricultural period in and adjacent to the proposed project site. Historic topographic maps show the Old North Fork Ditch (USGS 1901) also known as the North Fork Canal (USGS 1954) in the project vicinity to the northeast, and the Santa Ana Creek crossing the eastern end of the project area (USGS 1942, 1954). It appears the creek was later channelized into the existing channel which passes through the project area just west of the 5th and Central intersection, and again just east of the 210 freeway. The Harlem Motor Line railroad ran along 3rd Street just south of the proposed project site. There is one potentially significant remaining American Colonial revival house just south of the project site on 3rd Street, and one National Register Designated Craftsman house just west of the proposed project site near the intersection of Victoria and Cypress.
5.0 METHODS

5.1 CULTURAL RESOURCES RECORDS SEARCH

On August 26, 2009, PCR conducted a cultural resource records search through the CHRIS-SBAIC at San Bernardino County Museum. This records search included a review of all recorded historical resources and archaeological sites within a one-half mile radius of the study area as well as a review of cultural resource reports and historic topographic maps on file. In addition, PCR requested the review of the California Points of Historical Interest (CPHI), the California Historical Landmarks (CHL), the California Register, the National Register, and the California State Historic Resources Inventory listings (HRI). The purpose of the record search is to determine whether there are previously recorded archaeological or historical resources within the study area that require evaluation. The results also provide a basis for assessing the sensitivity of the study area for additional and buried archaeological resources.

5.2 PALEONTOLOGICAL RESOURCES RECORDS SEARCH

On August 18, 2009, PCR commissioned a paleontological resources records search through the SBCM. This records search entailed an examination of current geologic maps and known fossil localities inside and within the general vicinity of the study area. Results of the record search indicate whether or not there are previously recorded paleontological resources within the study area that require evaluation. The results also provide a basis for assessing the sensitivity of the study area for additional and buried paleontological resources.

5.3 SACRED LANDS FILE SEARCH AND NATIVE AMERICAN CONSULTATION

On August 18, 2009, PCR commissioned a SLF records search of the study area through the NAHC and conducted follow-up consultation with Native American groups and/or individuals identified by the NAHC as having affiliation with the study area vicinity. Each Native American group and/or individual listed was sent a project notification letter and map and was asked to convey any knowledge regarding prehistoric or Native American resources (archaeological sites, sacred lands, or artifacts) located within the study area or surrounding vicinity. The letter included information such as study area location and a brief description of the proposed development. Results of the search and follow-up consultation provide information as to whether there are any locations in the vicinity of the study area that are culturally sensitive to Native Americans.
5.4 PEDESTRIAN SURVEY

On August 27, 2009, PCR cross-trained archaeologists and paleontologists Kyle Garcia and Matthew Gonzalez, conducted a pedestrian survey of the study area using transects intervals totaling 5 to 10 meters (m). In all accessible areas of the study area, the ground surface was examined for archaeological and paleontological resources. A Trimble® GeoXT™ sub-meter Global Positioning System (GPS) unit was used for navigation and documenting distribution of study area conditions. Detailed notes and digital photographs were also taken of the study area and surrounding vicinity.

On August 17, 2009, PCR architectural historians conducted a field inspection of the proposed project site. The field survey utilized the survey methods of the State of California Office of Historic Preservation (OHP). The intensive level pedestrian surveys included a physical examination of the building and other properties in the area that exhibited potential architectural and/or historical associations, which were recorded through color 35mm digital photography and manuscript notes. PCR architectural historians conducted a windshield survey of the surrounding area immediately adjacent to the proposed project site to determine if there were any indirect impacts to nearby historic resources.
6.0 RESULTS

6.1 CULTURAL RESOURCES RECORDS SEARCH

Results of the cultural resources records revealed that 24 cultural resource studies have been conducted within a one-half mile radius of the study area. A summary table detailing these studies is provided in Table 1, Cultural Resource Studies within a One-half Mile Radius of the Study Area, on page 23. These studies were conducted from 1976 to 2005 and encompass approximately 50 percent of the one-half mile search radius around the study area. Of these 24 studies, nine studies were conducted within or adjacent to the study area. These studies included seven phase I archaeological and historical assessments and two historic property evaluations (see Table 1). Four of these studies encompass the study area and five are immediately adjacent to the study area. As a result, approximately 30 percent of the study has been previously surveyed by an archaeologist prior to PCR’s assessment.

One prehistoric resource and 27 historic-period resources have been recorded within the one-half mile radius of the study area. These resources are summarized in Table 2, Resources Identified within a One-half mile Radius of the Study Area, on page 25. Prehistoric archaeological site P-36-002313 is located approximately one-half mile north of the study area and is described as a village site where the Native Americans living there were driven off by armed men who wanted the land (Smith 1938). Two historic period resources were identified within the project boundaries; P-36-010820 and P-36-006848. P-36-010820 is located along Victoria Avenue along the northeastern portion of the study area and is described as buried and exposed portions of the Arrowhead and Waterman Railroad, which is also known as the Harlem Motor Road Line (Campbell 2002). P-36-006848 crosses multiple areas of the study area along 3rd and 5th Street and is described as the water transportation site known as the Cram-Van Leuven Ditch (Romani 1990).

The majority of these resources, with the exception of P-36-010820 and P-36-006848, are located far enough away from the study area and will not be impacted by the proposed project. Although the current condition of these resources is unknown, the result of the records search confirms the presence of past prehistoric and historic occupation within the vicinity of the study area.

As a result of the records search, the potential to encounter prehistoric resources within the study area is considered to be low, however the potential to encounter historic-period resources within the study area is considered moderate. The cultural resources record search bibliography from the CHRI-S-SBAIC is provided in Appendix B.
### Table 1

**Cultural Resource Studies within a One-half mile Radius of the Study Area**

<table>
<thead>
<tr>
<th>Year*</th>
<th>Author</th>
<th>Description/Title of Report</th>
<th>Location**</th>
</tr>
</thead>
<tbody>
<tr>
<td>1976</td>
<td>Harris, Ruth D.</td>
<td>Archaeological-Historical Resources Assessment of Tract No. 7519.</td>
<td>North</td>
</tr>
<tr>
<td>1977</td>
<td>Hammond, Stephen R. and Lois M. Webb</td>
<td>Cultural Resources Survey: Route 30 Between Interstate Route 10 and Arden Avenue, San Bernardino County, California.</td>
<td>Within the Eastern Portion of Study Area</td>
</tr>
<tr>
<td>1979</td>
<td>San Bernardino County Museum Association</td>
<td>Cultural Resources Assessment: Traffic Signal Project, Third Street at Victoria Avenue.</td>
<td>South</td>
</tr>
<tr>
<td>1998</td>
<td>Bonner, Wayne</td>
<td>Cultural Resources Record Search &amp; Survey Report for a Pacific Bell Mobile Services Telecommunications Facility: CM127-01, City of Highland, California. 5PP.</td>
<td>North</td>
</tr>
<tr>
<td>1999</td>
<td>Hammond, Stephen</td>
<td>Replacement of City Creek Bridge &amp; Widening of State Route 30. 15PP.</td>
<td>Within the Eastern Portion of Study Area</td>
</tr>
<tr>
<td>2000</td>
<td>White, Laurie S. and Robert S. White.</td>
<td>A Cultural Resource Assessment of a 20 Acre Portion of the Jerry Lewis Community Center Project Site, City of Highland, San Bernardino County, California. 17PP.</td>
<td>North</td>
</tr>
<tr>
<td>2001</td>
<td>Mason, Roger D.</td>
<td>Cultural Resources Records Search, Literature Review &amp; Reconnaissance Report for ATC Telecommunications Facility BC_372_n4, W. Highland, in the City of San Bernardino, California. 10PP.</td>
<td>North</td>
</tr>
<tr>
<td>2005</td>
<td>White, Robert S. and Laurie S. White.</td>
<td>A Cultural Resource Assessment of 15.2 Acres as shown on TPM 12078 &amp; 12079, Located Adjacent to East 5th Street, City of Highland, Bernardino County. 14PP.</td>
<td>South &amp; East</td>
</tr>
<tr>
<td>2005</td>
<td>Wetherbee, Matthew</td>
<td>Historical/Archaeological Resources Survey Report: San Bernardino International Airport Future Fuel Farm Project.</td>
<td>West</td>
</tr>
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</table>
Table 1 (Continued)

Cultural Resource Studies within a One-half mile Radius of the Study Area

<table>
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<th>Year*</th>
<th>Author</th>
<th>Description/Title of Report</th>
<th>Location**</th>
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<tr>
<td>2006</td>
<td>Wlodarski, Robert J.</td>
<td>Records Search and Field Reconnaissance Program for NEXTEL Wireless</td>
<td>Within the Eastern Portion</td>
</tr>
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<td></td>
<td>Telecommunications Site CA-5349C.</td>
<td>of Study Area</td>
</tr>
<tr>
<td>2008</td>
<td>Tang, Bai and Michael Hogan</td>
<td>Historical/Archaeological Resources Survey Report: Addition to Greenspot</td>
<td>North &amp; East</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Village and Marketplace.</td>
<td></td>
</tr>
</tbody>
</table>

* Year of initial site recordation  
** Location relative to study area  
Source: CHRIS-SBAIC, September 2009
### Table 2

**Resources Identified within a One-half mile Radius of the Study Area**

<table>
<thead>
<tr>
<th>Year *</th>
<th>Site</th>
<th>Description of Site</th>
<th>Location **</th>
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<tbody>
<tr>
<td>1938</td>
<td>CA-SBR-2313</td>
<td>Prehistoric Campsite</td>
<td>.5 miles N</td>
</tr>
<tr>
<td>1990</td>
<td>P1063-66H</td>
<td>Norton AFB Building 302 Base Hobby Shop</td>
<td>.25 miles S</td>
</tr>
<tr>
<td>1990</td>
<td>CA-SBR-6848H</td>
<td>Cram-Van Leuven Ditch</td>
<td>Within the Study Area</td>
</tr>
<tr>
<td>1993</td>
<td>CA-SBR-7701H</td>
<td>The Stidham House and Associated Features</td>
<td>.15 miles W</td>
</tr>
<tr>
<td>1996</td>
<td>CA-SBR-8262H</td>
<td>Schultz Residence</td>
<td>.10 miles N &amp; E</td>
</tr>
<tr>
<td>2002</td>
<td>CA-SBR-10820H</td>
<td>Segment of the San Bernardino, Arrowhead &amp; Waterman Railroad known as the Harlem Motor Road Line.</td>
<td>Within the Study Area</td>
</tr>
<tr>
<td>2005</td>
<td>P36-12353</td>
<td>Single Family Property</td>
<td>.01 miles N</td>
</tr>
<tr>
<td>2007</td>
<td>P36-13750</td>
<td>ACS-KCB-1 Historic Property</td>
<td>.4 miles NE</td>
</tr>
<tr>
<td>NA</td>
<td>P36-12352</td>
<td>Single Family Property</td>
<td>.3 miles E</td>
</tr>
<tr>
<td>NA</td>
<td>P36-13758</td>
<td>Single Family Property</td>
<td>.32 miles E</td>
</tr>
<tr>
<td>NA</td>
<td>P36-13759</td>
<td>Single Family Property</td>
<td>.35 miles E</td>
</tr>
<tr>
<td>NA</td>
<td>P36-13760</td>
<td>Single Family Property</td>
<td>.40 miles E</td>
</tr>
<tr>
<td>NA</td>
<td>P36-13761</td>
<td>Single Family Property</td>
<td>.45 miles NE</td>
</tr>
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<td>NA</td>
<td>P36-20650</td>
<td>Single Family Property</td>
<td>.45 miles NE</td>
</tr>
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<td>P36-20651</td>
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</tr>
<tr>
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<td>NA</td>
<td>P1063-74H</td>
<td>Military Structures</td>
<td>.4 miles S</td>
</tr>
<tr>
<td>NA</td>
<td>P1063-75H</td>
<td>Military Structures</td>
<td>.4 miles S</td>
</tr>
<tr>
<td>NA</td>
<td>P1063-54H</td>
<td>Water Transportation Site</td>
<td>.4 miles NW</td>
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<tr>
<td>NA</td>
<td>P1063-47H</td>
<td>Commercial Sites</td>
<td>.45 miles N</td>
</tr>
<tr>
<td>NA</td>
<td>P1063-34H</td>
<td>Commercial Sites</td>
<td>.45 miles N</td>
</tr>
<tr>
<td>NA</td>
<td>P36-15497</td>
<td>Road (Baseline Street)</td>
<td>.4 miles N</td>
</tr>
<tr>
<td>NA</td>
<td>CA-SBR-6096H</td>
<td>Refuse Site</td>
<td>.5 miles S</td>
</tr>
</tbody>
</table>

* Year of initial site recordation

** Location relative to study area

*Source: CHRIS-SBAIC, September 2009*
6.2 HISTORICAL RESOURCES RECORDS SEARCH

The historical resources investigation included records searches and review of local histories to determine: (i) if known historical resources have previously been recorded within a ½-mile radius of the project site; (ii) if the project site has been systematically surveyed by historians prior to the initiation of the study; and/or (iii) whether there is other information that would indicate whether or not the area of the project site is historically sensitive or may pose indirect impacts to adjacent historic resources. PCR consulted the National Register of Historic Places (National Register), California Register of Historic Places (California Register), California Historic Resources Inventory (HRI), California Points of Historical Interest (PHI), the California Historical Landmarks (CHL), and the City of Highland to determine previously identified historical resources within a ½-mile radius of the project site. One existing historical resource was identified within a half-mile radius of the study area.

The Stidham House located at 26374 appears to be listed on the City of Highland Historic and Cultural Inventory, and was determined eligible for the National Register through survey evaluation. The Stidham House also appears eligible for the California Register by virtue of its National Register eligibility. In addition, 3 properties have been determined not eligible for listing or designation. There are no California Points of Historical Interest or California Historical Landmarks within the ½-mile radius.

6.3 PALEONTOLOGICAL RESOURCES RECORDS SEARCH

Results of the paleontological resources records search through the SBCM indicates that the study area is situated upon superficial deposits of latest Holocene younger axial-valley alluvium as well as recent wash alluvium. According to the SBCM, these types of deposits do not contain significant nonrenewable paleontological resources. Also, no previously-known paleontological resource localities were found within a one-mile radius of the study area. However, these Holocene sediments may overlie subsurface Pleistocene older alluvium and these can contain significant Pleistocene vertebrate fossils. Shallow earth moving operations in the younger Holocene alluvium within the study area are unlikely to reveal significant vertebrate fossils. On the other hand, deeper excavations that extend into the older Pleistocene deposits may well be expected to encounter significant remains of fossil vertebrates.

As a result of these findings, the paleontological sensitivity of the study area is considered to be low. No paleontological resources were identified on the surface during the pedestrian survey and although the results of the records search suggest that they may exist within the study area, it also suggests that they will only be present at great depths. As a result, the proposed project will have no impact to significant paleontological resources and no further work is needed. The paleontological resources record search results letter is provided in Appendix C.
6.4 SACRED LANDS FILE SEARCH AND NATIVE AMERICAN CONSULTATION

The NAHC SLF records search results did not indicate any known Native American cultural resources within the study area. As per NAHC suggested procedure, follow-up letters were sent via certified mail on August 18, 2009 to the ten Native American individuals and organizations identified by the NAHC as being affiliated with the vicinity of the study area to request any additional information or concerns they may have about Native American cultural resources that may be affected by the proposed project. As of September 23, 2009, PCR has received one letter response from the Soboba Cultural Resources Department and a phone call from Pechanga Cultural Resources (see Appendix D) regarding this proposed project. Both the Soboba and Pechanga Bands have deferred to the San Manuel Band of Mission Indians. In addition, a follow-up phone call was made to the San Manuel Band of Mission Indians (See Appendix D), however PCR has not yet received any responses back regarding this phone call. PCR will keep the County apprised with the progress of this on-going Native American consultation. The NAHC SLF records search results and the Native American contact list, are provided in Appendix D.

6.5 PEDESTRIAN SURVEY

No archaeological resources were identified during PCR’s pedestrian survey of the study area. PCR surveyed 100 percent of the study area (Figure 4, Survey Coverage Map, on page 28); however, the majority of the study area is heavily disturbed by the construction of single family homes, commercial buildings, asphalt-paved roads, sidewalks, and landscaping (Figures 5 and 6, Study Area Photographs, on pages 29 and 30) Given the heavily disturbed context of the study area and the nature of the proposed project, it is unlikely that implementation of the proposed project will impact previously unknown archaeological resources. Any unknown archaeological resources that may have existed prior to the disturbances are likely to have been displaced. However, as mentioned above, a few small areas of the study area contain known buried resources associated with P-36-010820 and P-36-006848 and may be impacted during the implementation of the proposed project. As a result, the overall sensitivity of the study area with respect to buried resources appears to be low to moderate.

PCR surveyed 100 percent of the study area and no historical resources were identified. However, just outside the survey area at 27136 3rd Street, PCR identified a rare extant two-story American Colonial Revival residence with high integrity associated with the agricultural-era of the City of Highland. The residence appears to meet the eligibility thresholds for designation as a historical resource at the federal, state, and local level. Located outside the study area, the residence at 27136 3rd Street is not negatively impacted by the proposed project.
Figure 4
3rd and 5th Street Improvement Project
Survey Coverage Map

Source: AirPhoto, 2007; PCR Services Corporation, 2009.
Photograph 1: Overview of study area, view north.

Photograph 2: Overview of study area, view south.

Photograph 3: Overview of study area, view southwest.

Photograph 4: Overview of study area, view west.

Figure 5
3rd and 5th Street Improvement
Study Area Photographs

Source: PCR Services Corporation, 2009.
Figure 6
3rd and 5th Street Improvement
Study Area Photographs

Source: PCR Services Corporation, 2009.
7.0 SUMMARY OF RESULTS AND MITIGATION

7.1 ARCHAEOLOGICAL RESOURCES

Results of the cultural resources records search revealed that one prehistoric resource and 27 historic period resources were previously recorded within a one-half mile radius of the study area. Prehistoric archaeological site P-36-002313 is located approximately one-half mile north of the study area and is described as a village site where the Native Americans living in the area were driven off by armed men who wanted to take control of the land (Smith 1938). Two historic period resources were identified within the project boundaries; P-36-010820 and P-36-006848. P-36-010820 is located along Victoria Avenue along the northeastern portion of the study area and is described as the buried and exposed portions of the Arrowhead and Waterman Railroad, which is also known as the Harlem Motor Road Line (Campbell 2002). P-36-006848 crosses multiple areas of the study area along 3rd and 5th Street and is described as a water transportation site known as the Cram-Van Leuven Ditch (Romani 1990). The majority of these resources, with the exception of P-36-010820 and P-36-006848, are located far enough away from the study area and will not be impacted by the proposed project.

The NAHC SLF records search results did not indicate any known Native American cultural resources within the study area. Numerous archaeological surveys have been conducted within the immediate vicinity of the study area (covering approximately 50 percent of the one-half mile radius surrounding the study area) that has yielded positive results. However, the majority of the study area had not been surveyed by an archaeologist prior to PCR’s assessment.

No archaeological resources were identified during PCR’s pedestrian survey of the study area. PCR surveyed 100 percent of the study area; however, the majority of the study area is heavily disturbed by the construction of single family homes, commercial buildings, asphalt-paved roads, sidewalks, and landscaping. Given the heavily disturbed context of the study area and the nature of the proposed project, it is unlikely that implementation of the proposed project will impact previously unknown archaeological resources. Any unknown archaeological resources that may have existed prior to the disturbances are likely to have been displaced. However, as mentioned above, a few small areas of the study area contain known buried resources associated with P-36-010820 and P-36-006848 and may be impacted during the implementation of the proposed project. As a result, the overall sensitivity of the study area with respect to buried resources appears to be low to moderate.

Given the low to moderate potential for buried historic and archaeological resources that may qualify as eligible for the National Register or California Register and/or as significant
resources pursuant to CEQA, archaeological monitoring is not recommended during implementation of the proposed project. However, the following mitigation measures are recommended to identify, evaluate, and recover cultural resources that are accidentally encountered during implementation of the proposed project.

1. If archaeological resources associated with P-36-010820 and P-36-006848 or otherwise are encountered during implementation of the project, ground-disturbing activities should temporarily be redirected from the vicinity of the find. The Applicant should immediately notify a qualified archaeologist of the find. The archaeologist should coordinate with the Applicant as to the immediate treatment of the find until a proper site visit and evaluation is made by the archaeologist. The archaeologist shall be allowed to temporarily divert or redirect grading or excavation activities in the vicinity in order to make an evaluation of the find and determine appropriate treatment. Treatment will include the goals of preservation where practicable and public interpretation of historic and archaeological resources. All cultural resources recovered will be documented on California Department of Parks and Recreation Site Forms to be filed with the CHRIS-SBAIC. The archaeologist shall prepare a final report about the find to be filed with the Applicant, Lead Agency, and the CHRIS-SBAIC, as required by the California Office of Historic Preservation. The report shall include documentation and interpretation of resources recovered. Interpretation will include full evaluation of the eligibility with respect to the National and California Register of Historic Places and CEQA. The report shall also include all specialists’ reports as appendices. The Lead Agency shall designate repositories in the event that significant resources are recovered. The archaeologist shall also determine the need for archaeological monitoring for any ground-disturbing activities thereafter.

2. If human remains are encountered unexpectedly during construction excavation and grading activities, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the California Native American Heritage Commission (NAHC). The NAHC will then identify the person(s) thought to be the Most Likely Descendent of the deceased Native American, who will then help determine what course of action should be taken in dealing with the remains.

With the implementation of the above mitigation measures, impacts to archaeological resources from the proposed project will be considered less than significant.
7.2 HISTORICAL RESOURCES

Results of the records search, which included review of the National Register of Historic Places (National Register), California Register of Historic Places (California Register), California Historic Resources Inventory (HRI), California Points of Historical Interest (PHI), the California Historical Landmarks (CHL), and the City of Highland Historic and Cultural inventory, indicated that there was one existing historical resource outside of the proposed project area, but within a half-mile radius of the study area. Three properties outside of the proposed project area, but within a half-mile radius of the study area were determined not eligible for listing or designation. In addition, just outside the survey area at 27136 3rd Street, PCR identified a rare extant two-story American Colonial Revival residence with high integrity associated with the agricultural-era of the City of Highland. The residence appears to meet the eligibility thresholds for designation as a historical resource at the federal, state, and local level. Located outside the study area, the residence at 27136 3rd Street is not indirectly impacted by the proposed project. As a result, the proposed project will have no impact to significant historical resources and no further work is needed.

7.3 PALEONTOLOGICAL RESOURCES

Results of the paleontological resources records search through the SBCM indicates that the study area is situated upon superficial deposits of latest Holocene younger axial-valley alluvium as well as recent wash alluvium. According to the SBCM, these types of deposits do not contain significant nonrenewable paleontological resources. Also, no previously-known paleontological resource localities were found within a one-mile radius of the study area. However, these Holocene sediments may overlie subsurface Pleistocene older alluvium and these can contain significant Pleistocene vertebrate fossils. Shallow earth moving operations in the younger Holocene alluvium within the study area are unlikely to reveal significant vertebrate fossils. On the other hand, deeper excavations that extend into the older Pleistocene deposits may well be expected to encounter significant remains of fossil vertebrates.

As a result of these findings, the paleontological sensitivity of the study area is considered to be low. No paleontological resources were identified on the surface during the pedestrian survey and although the results of the records search suggest that they may exist within the study area, it also suggests that they will only be present at great depths. As a result, the proposed project will have no impact to significant paleontological resources and no further work is needed. These measures are consistent with the recommendations set forth by the SBCM in the records search results (see Appendix C):
7.4 NATIVE AMERICAN CONSULTATION

As per NAHC suggested procedure, follow-up letters were sent via certified mail on August 27, 2009 to the ten Native American individuals and organizations identified by the NAHC as being affiliated with the vicinity of the study area to request any additional information or concerns they may have about Native American cultural resources that may be affected by the proposed project. As of September 23, 2009, PCR has received one letter response from the Soboba Cultural Resources Department and a phone call from Pechanga Cultural Resources (see Appendix D) regarding this proposed project. Both the Soboba and Pechanga Bands have deferred to the San Manuel Band of Mission Indians. In addition, a follow-up phone call was made to the San Manuel Band of Mission Indians; however PCR has not yet received any responses back regarding this phone call (See Appendix D). PCR will keep the County apprised with the progress of this on-going Native American consultation.
8.0 REFERENCES CITED

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Wallace, William J.

Warren, Claude N.

White, Raymond C.
Kyle Garcia, ARCHAEOLOGIST

Education
- B.A., Physical Anthropology, University of California, Santa Barbara, California, 2004

Continuing Education
- Section 106 Compliance: An Introduction to Professional Practice under Section 106 of the National Historic Preservation Act, 2009
- Cultural Resources Orientation and Pro-Seminar, County of Riverside, 2009
- 40-Hour HAZWOPER Training, 2009
- Cultural Resources Protection Under CEQA and Other Legislative Mandates, UCLA Extension, 2008
- Riverside County Archaeology and Cultural Sensitivity Training Program, 2007

Professional Affiliations
- Society for American Archaeology
- Society for California Archaeology
- Pacific Coast Archaeological Society
- Orange County Natural History Museum

Summary
Kyle Garcia has over six years of experience in the academic and professional field of archaeology. His coursework and consulting career have provided him with knowledge of archaeological resources in coastal, interior, and island settings. Mr. Garcia specializes in faunal analysis and has worked in faunal laboratories at UCSB and the Santa Barbara Museum of Natural History. He has managed projects, conducted surveys, construction monitoring, impact analyses, and site assessments. Mr. Garcia has also evaluated resources for the California Register of Historical Resources and National Register of Historic Places, conducted test excavations, historic building research, technical report writing, client/agency coordination, Native American coordination, artifact processing, laboratory management, and site recordation.

Experience
Mr. Garcia has contributed his services and expertise to over 100 projects at PCR subject to requirements of the California Environmental Quality Act (CEQA), Section 106 of the National Historic Preservation Act (NHPA), the National Environmental Quality Act (NEPA), and other federal, State, and local regulations. These projects included infrastructure, utility, parks, mixed-use, residential, industrial, and commercial developments that served a variety of public and private sector clients throughout California and Arizona.

Mr. Garcia has also gained valuable experience with recording historic and prehistoric archaeological sites with Garmin, Magellan, and sub-meter Trimble GeoXT Global Positioning System (GPS) units. He has worked with Geographic Information Systems (GIS) software such as ArcPad, ArcGIS, and ArcView, and developed methods for using these products to accurately and efficiently record archaeological sites. Also during his tenure at PCR, Mr. Garcia has been cross-trained in paleontological mitigation monitoring and assisted in the excavations of a Miocene whale fossil near Irvine, California.

Specific Project Experience: Mr. Garcia has served as Project Manager or Deputy Project Manager for over 50 Southern California Edison (SCE) projects that were subject to requirements of CEQA, Section 106 of the NHPA, and other local ordinances. These projects included deteriorated pole replacements, conduit and vault installations, and distribution circuit installations (above ground and underground) located throughout SCE’s service area. Mr. Garcia not only managed the budgets and supervised the work for these projects, but also conducted most of the record searches, surveys, report writing, site recordation, and client/agency coordination for these projects. In addition, Mr. Garcia supervised and participated in the emergency on-call archaeological survey and monitoring services for SCE property that was affected by the Devore Heights, Corral and Santiago Fires located in Devore, Malibu and eastern Orange County, California, respectively. These projects entailed rapid response services including close-interval surveys, construction monitoring, and sensitivity assessments for SCE property in areas damaged by the fires.

Mr. Garcia has also conducted numerous cultural resources assessments in support of Mitigated Negative Declarations and Environmental Impact Reports for projects throughout the southern California region. These include transportation, utility, commercial, residential, solid waste, and school projects.

Presentations: Mr. Garcia presented a paper at the 72nd Annual Meeting for the Society of American Archaeology Conference in Austin, Texas in 2007. The paper focused on prehistoric ‘yoni’ features encountered on a project site proposed to be developed in western Riverside County, California. The project was subject to requirements of CEQA and Section 106 of the NHPA.
Jon L. Wilson, M. Arch., LEED AP, SENIOR ARCHITECTURAL HISTORIAN II

Education
- M. Arch., School of Architecture, Tulane University, New Orleans, Louisiana, 2005
- M.A., American Architectural History, University of Mississippi, Oxford, Mississippi, 2000
- B.A., Early American History, Occidental College, Los Angeles, California, 1996
- Graduate Study, Historic Preservation, Graduate School of Architecture, Planning & Preservation, Columbia University, New York, New York, 2002

Continuing Education
- LEED Workshop, U.S. Green Building Council
- Evaluating Historical Resources in the Los Angeles Area, Association of Environmental Professionals

Professional Affiliations
- The American Institute of Architects
- LEED Accredited Professional, U.S. Green Building Council
- Los Angeles Conservancy
- National Trust for Historic Preservation
- American Farmland Trust

Awards
- Sally Kress Tompkins Fellowship, Society of Architectural Historians, 2000

Experience
Mr. Wilson has a broad training and professional experience in the practice of Historic Preservation and Cultural Resource Management. He has extensive experience consulting clients on projects for compliance of Sections 106 of the National Historic Preservation Act (NHPA), the California Environmental Quality Act (CEQA), and local preservation ordinances. Mr. Wilson is experienced in the assessment of projects for conformance with the Secretary of the Interior’s Standards for the Rehabilitation of Historic Buildings, and has assisted clients with Historic American Buildings Survey (HABS) documentation, Historic Structure Reports (HSR), National Register of Historic Places nominations, California Register of Historical Resources nominations, local historic designation nominations, Historic Preservation Federal Tax Credit applications, preservation design, and feasibility reports.

HABS: Mr. Wilson worked professionally as an employee and a private contractor for the HABS, a historic building documentation department within the National Park Service. His relationship with HABS began after he won the Sally Kress Tompkins Fellowship, an academic research grant jointly awarded by HABS and the Society of Architectural Historians. As an employee of HABS, Mr. Wilson initially worked documenting a colonial governor’s rural retreat just outside Philadelphia, Pennsylvania, and then over several years worked in Natchitoches, Louisiana, documenting rural housing patterns and types, and producing an urban history on the development of the town’s commercial district.

Mr. Wilson worked at Historic Resources Group (HRG) in Los Angeles prior to joining PCR. At HRG, Mr. Wilson worked for the City of Riverside conducting HABS documentation for the Stalder Building and Brown’s Garage, creating a CEQA technical report, a Federal Tax Credit for Historic Preservation application, and design monitoring for the Fox Riverside Theatre, an HSR for the National Landmark Harada House, and a historic interpretation plan for the grain silos at the Riverwalk at La Sierra University.

Surveys: Mr. Wilson has conducted historical and cultural resource surveys for specific plans in Placentia and Santa Ana in Orange County, California, and in Whittier, California. He helped produce the National Register Nomination and design consulting for Santa Anita Park, Conducted Section 106 Review for the City of Los Angeles, authored a California Culture and Historical Endowment (CCHE) grant for the City of El Monte’s Southern California Heritage Walk. He conducted a survey of contributing “puestos” to the El Pueblo de Los Angeles Historic Monument. Mr. Wilson produced historic preservation design drawings and conducted design review for multiple historic properties including the Marion Davies Estate, the Lopez Adobe, Orchard Gables, and the Hughes Industrial Historic District. He also produced a Federal Tax Credit for Historic Preservation application for the Lompoc Theatre, and many other documents related to historic preservation and cultural resource management.

Summary
Jon Lamar Wilson has over eight years of professional and academic experience in the practice of architecture, historic preservation, and architectural history. He has a wide-ranging knowledge of nineteenth and twentieth-century American Architecture, with a specific focus on California and the American South. In particular, Mr. Wilson is an expert in both urban and rural housing types and how they relate to their larger context. His qualifications and experience exceeds those of the Secretary of the Interior’s Professional Qualification Standards in History, Architectural History, and Historic Architecture.
Matthew Gonzalez, ARCHAEOLOGICAL/PALEONTOLOGICAL TECHNICIAN

Education
- B.A., Classical Archaeology, University of California, Santa Barbara, California, 2005
- Archaeological Studies Program, Accent Center, Rome, Italy 2004
- College Year in Athens, Athens, Greece, 2003

Continuing Education
- Cultural Resources Protection Under CEQA and Other Legislative Mandates, UCLA Extension, 2008
- Riverside County Archaeology and Cultural Sensitivity Training Program, 2007
- 40-Hour HAZWOPER Training, 2009

Professional Affiliations
- Society for American Archaeology

Experience
- Mr. Gonzalez has experience in several aspects of archaeological and paleontological investigations. He has experience in the identification of historic and pre-historic archaeological resources. Mr. Gonzalez has led field crews on site investigations and participated in surveying, mapping, excavating, wet/dry screening, site recording, and soil analysis. He has applied these skills in projects necessitating Phase I and II data recovery in California and Arizona. Mr. Gonzalez is skilled in the application of Geographic Information Systems (GIS)/Global Positioning Systems (GPS) to facilitate field investigations. He uses ArcView and Google Earth to develop field maps useful to plot artifacts and survey sites.

In addition to his field work, Mr. Gonzalez has hands-on laboratory experience working both for PCR and the Archaeology department at the University of California, Santa Barbara. His laboratory experience includes processing archaeological collections including cleaning, sorting, cataloging archiving/ preserving, fossil analysis, and drawing specimens associated with the Chumash site SBA 3737 in Santa Ynez Valley. Mr. Gonzalez regularly performs record searches, mapping, and digitizing for projects. He routinely prepares letter, Phase I, Section 106, and CEQA-Plus reports; Initial Study and Environmental Impact Report (EIR) sections; and Native American letters. He is also skilled in client coordination and SB 18 Consultation.

Archaeological & Paleontological Surveys: Due to his archaeology and paleontology cross-training, Mr. Gonzalez has performed archaeological and paleontological surveys on a number of projects throughout Southern California and Arizona. He assisted in the archaeological and paleontological surveys, site recording, and excavation for two large-scale projects including the 3,000-acre Heritage Fields Great Park in Irvine, California and for approximately 10,000 acres of the 19,000-acre La Osa Ranch in Pinal County, Arizona. Additional projects include a paleontological survey for the Del Mar Hilton Gardens Inn project site in San Diego. He conducted both archaeological and paleontological surveys for the 136-acre Trabuco Canyon 119 site in Orange County, Rosamond recycled water pipeline project in Kern County, various projects for the San Bernardino Associated Governments, LAX Master Plan, Cesar Chavez Roundabout, and over 25 Southern California Edison (SCE) projects including the Tea Fire emergency response project. His archaeological survey experience include the 175-acre Oasis Date Garden project in Riverside County; the Lytle Creek and Nuevo Road developments in San Bernardino and Riverside counties, respectively; and the 2,200-acre Skyline Ranch Project in Santa Clarita Valley.

Archaeological & Paleontological Monitoring: Mr. Gonzalez has also conducted mitigation and construction monitoring for several projects. He conducted archaeological surveys, recording, excavations, artifact processing, and construction monitoring to achieve mitigation compliance for a KB Home residential development in Riverside County, California. He provided paleontological monitoring for the Stephen S. Wise Temple in Los Angeles which included the discovery of various species of the Upper Miocene/Modelo Formation. Mr. Gonzalez provided archaeological and paleontological monitoring for the Heritage Fields Great Park in addition to his survey work. His additional archaeological/paleontological monitoring projects include Building 319 of the Second Harvest Food Bank on the former El Toro Marine Corps Air Station; a John Laing Homes Newland Street development in Huntington Beach; the 16-acre Rossmore development in Redlands; and a number of SCE projects.
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1993 R.H. STIDHAM'S COBBLESTONE HOUSE: HISTORIC PRESERVATION IN THE CITY OF HIGHLAND, COUNTY OF SAN BERNARDINO, CA. ARCHAEOLOGICAL CONSULTING SERVICES. SUBMITTED TO PAYEZ GENADRY. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 04/08/1994


Last Update: 04/20/1994

Keywords: ARCHAEOLOGICAL RECONNAISSANCE REPORT (1), STRUCTURAL SITE (1), FOUNDATIONS (1), BRIDGE (1), WALLS (1), WATER STORAGE SITE (1), WATER TRANSPORTATION SITE (1), REFUSE DISPOSAL SITE (1), DAIRY SITE (1), FENCE (1), CANAL (1), RESIDENTIAL SITE (1), FLUME (1), BEDROCK MORTARS (1), RANCHING SITE (1), ORCHARD (1), AGRICULTURAL SITE (1), RAILROAD SITE (1), WELL (1), CISTERN (1), POWER PLANT (1), CERAMICS (3), GLASS (3), METAL

Document No.: 1063736

WHITE, LAURIE S. AND ROBERT S. WHITE

2000 A CULTURAL RESOURCE ASSESSMENT OF A 20 ACRE PORTION OF THE JERRY LEWIS COMMUNITY CENTER PROJECT SITE, CITY OF HIGHLAND, SAN BERNARDINO COUNTY, CA. 17PP. ARCHAEOLOGICAL ASSOCIATES. SUBMITTED TO CITY OF HIGHLAND. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 11/10/2004
Cataloged by: WRO-CA-03 on 11/10/2004
Keywords: ARCHAEOLOGICAL RECONNAISSANCE REPORT (1), 20 ACRES (4), SAN BERNARDINO VALLEY (4), INTERMONTANE VALLEY (4), NO RESOURCES (4), USGS REDLANDS 7.5' QUAD (4)

Document No.: 1063753

BONNER, WAYNE

1998 CULTURAL RESOURCES RECORD SEARCH & SURVEY REPORT FOR A PACIFIC BELL MOBILE SERVICES TELECOMMUNICATIONS FACILITY: CM127-01, CITY OF HIGHLAND, CA. 5PP. CHAMBERS GROUP. SUBMITTED TO PBMS. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 11/10/2004
Cataloged by: WRO-CA-03 on 11/10/2004
Keywords: ARCHAEOLOGICAL RECONNAISSANCE REPORT (1), 0.25 ACRES (4), SAN BERNARDINO VALLEY (4), INTERMONTANE VALLEY (4), NO RESOURCES (4), USGS REDLANDS 7.5' QUAD (4)

Document No.: 1063756

MASON, ROGER D.


Last Update: 11/10/2004
Cataloged by: WRO-CA-03 on 11/10/2004
Keywords: ARCHAEOLOGICAL RECONNAISSANCE REPORT (1), HISTORIC (1), REFUSE
DISPOSAL (1), CERAMICS (3), CLASS (3), ASPHALT (3), CONCRETE (3), 0.25 ACRES (4), SAN BERNARDINO VALLEY (4), INTERMONTANE VALLEY (4), RESOURCES NOT RECORDED (4), USGS REDLANDS 7.5' QUAD (4)

Document No.: 1064065
WHITE, ROBERT S. AND LAURIE S. WHITE

2005 A CULTURAL RESOURCE ASSESSMENT OF 15.2 ACRES AS SHOWN ON TPM 12078 & 12079, LOCATED ADJACENT TO EAST 5TH ST, CITY OF HIGHLAND, SAN BERNARDINO COUNTY. 14PP. ARCHAEOLOGICAL ASSOCIATES. SUBMITTED TO LILBURN CORPORATION. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 06/01/2007
Cataloged by: WRO-CA-03 on 06/01/2007
Keywords: ARCHAEOLOGICAL RECONNAISSANCE REPORT (1), 15.2 ACRES (4), SAN BERNARDINO VALLEY (4), INTERMONTANE VALLEY (4), SANTA ANA RIVER (4), NO RESOURCES (4), USGS REDLANDS 7.5' QUAD (4)

Document No.: 1064103
HAMMOND, STEPHEN

1999 REPLACEMENT OF CITY CREEK BRIDGE & WIDENING OF STATE ROUTE 30. 15PP. CALTRANS. SUBMITTED TO DEPT OF TRANSPORTATION. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.

Last Update: 06/01/2007
Cataloged by: WRO-CA-03 on 06/01/2007
Keywords: ARCHAEOLOGICAL RECONNAISSANCE REPORT (1), HISTORIC (1), BRIDGE (1), 10 ACRES (4), SANTA ANA RIVER (4), CITY CREEK (4), USGS REDLANDS 7.5'
Document No.: 1060447
SCOTT, M. B.
Last Update: 04/05/89
Cataloged by: WRO-CA-03 on 12/07/88

Document No.: 1061425
ALTSCHUL, JEFFREY H., MARTIN R. ROSE, AND MICHAEL K. LERCH
1984 MAN AND SETTLEMENT IN THE UPPER SANTA ANA RIVER DRAINAGE: A CULTURAL RESOURCES OVERVIEW. STATISTICAL RESEARCH. SUBMITTED TO U.S. ARMY CORPS OF ENGINEERS. UNPUBLISHED REPORT ON FILE AT S.B. CO. MUSEUM, 2024 ORANGE TREE LANE, REDLANDS, CA 92374.
Last Update: 05/10/89
Cataloged by: WRO-CA-03 on 05/10/89

Document No.: 1061837
GOLDBERG, SUSAN K. AND JEANNE E. ARNOLD
Last Update: 06/17/92
Cataloged by: WRO-CA-03 on 06/30/89

Document No.: 1062963
HAENSZEL, ARDA
Last Update: 02/08/95
Cataloged by: WRO-CA-03 on 02/08/95
21 August 2009

PCR Services Corporation
attn: Matthew Gonzalez, Archaeological/Paleontological Technician
233 Wilshire Boulevard, Suite #130
Santa Monica, CA 90401

re: PALEONTOLOGY LITERATURE AND RECORDS REVIEW, 3RD AND 5TH STREET IMPROVEMENTS PROJECT, CITY OF REDLANDS, SAN BERNARDINO COUNTY, CALIFORNIA

Dear Mr. Gonzalez,

The Division of Geological Sciences of the San Bernardino County Museum (SBCM) has completed a literature review and records search for the above-named linear alignment in the City of Redlands, San Bernardino County, California. The study area is located in the southern portions of sections 4 and 5, Township 1 South, Range 3 West, San Bernardino Base and Meridian, as seen on the Redlands, California 7.5' United States Geological Survey topographic quadrangle map (1967 edition, photorevised 1988).

Previous geologic mapping (Bortugno and Spittler, 1986; Matti and others, 2003) indicates that the study area is situated upon surface exposures of latest Holocene younger axial-valley alluvium (= unit Qya_s) as well as recent wash alluvium (= Qvvw). These Holocene and recent alluvial sedimentary units have low potential to contain significant nonrenewable paleontologic resources, and so are assigned low paleontologic sensitivity. However, these Holocene alluvial sediments may overlie subsurface Pleistocene older alluvium. If present in the subsurface, this alluvium would likely have high potential to contain fossil resources, depending upon its lithology. Older Pleistocene alluvial sediments elsewhere throughout the Inland Empire have been reported to yield significant fossils of extinct animals from the Ice Age (Jefferson, 1991; Reynolds and Reynolds, 1991; Woodburne, 1991; Springer and Scott, 1994; Scott, 1997; Springer and others, 1998, 1999, 2007). Fossils recovered from these Pleistocene sediments represent extinct taxa including mammoths, mastodons, ground sloths, dire wolves, short-faced bears, sabre-toothed cats, large and small horses, large and small camels, and bison, as well as plant macro- and microfossils (Jefferson, 1991; Reynolds and Reynolds, 1991; Woodburne, 1991; Springer and Scott, 1994; Scott, 1997; Springer and others, 1998, 1999, 2007; Anderson and others, 2002). However, because of the depositional environment inferred for this portion of the Santa Ana River wash, it is considered probable that any such Pleistocene sediments present in the subsurface are likely to be present only at substantial depths.
For this review, I conducted a search of the Regional Paleontologic Locality Inventory (RPLI) at the SBCM. The results of this search indicate that no previously-known paleontologic resource localities are recorded by the SBCM from within the boundaries of the study area, nor from within at least one mile in any direction.

**Recommendations**

The results of the literature review and the check of the RPLI at the SBCM demonstrate that excavation in surficial and subsurface exposures of Holocene alluvium within the boundaries of the proposed development site has low potential to adversely impact significant nonrenewable paleontologic resources. These sediments have low paleontologic sensitivity. Additionally, fossiliferous Pleistocene sediments presumed to be present in the subsurface are likely to be encountered only at great depth. For these reasons, *no program to mitigate adverse impacts to fossil resources is recommended at this time.*

**References**


Please do not hesitate to contact us with any further questions you may have.

Sincerely,

Eric Scott, Curator of Paleontology
Division of Geological Sciences
San Bernardino County Museum
August 18, 2009

Eric Scott  
SAN BERNARDINO COUNTY MUSEUM  
2024 Orange Tree Lane  
Redlands, California 92374  

Re: PALEONTOLOGICAL RECORD SEARCH REQUEST: 3RD & 5TH STREET IMPROVEMENTS PROJECT, SAN BERNARDINO COUNTY, CALIFORNIA

Dear Mr. Scott:

PCR Services Corporation (PCR) is preparing environmental documentation for the proposed 3rd & 5th Street Improvements project in San Bernardino County, California. We are writing to request a paleontological resource records search for the project vicinity. This project consists of widening the road, reconstructing the pavement, adding new sidewalks, curb and gutter system, drainage system and retaining walls.

The project site is located in sections 4 and 5 of township 1 north, range 3 west of the 1967 USGS Redlands, Calif., 7.5' Topographic Quadrangles, and is illustrated on the attached map.

Thank you for your assistance with our efforts to identify and protect paleontological resources that may be affected by the proposed project. If you anticipate that the records search will require review of more than two USGS topographic quadrangle maps, or if I can provide additional project information, please contact me at (949) 753-7001 or via email at m.gonzalez@pcrnet.com.

Sincerely,

PCR SERVICES CORPORATION

Matthew Gonzalez  
Archaeological/Paleontological Technician

Attachment
SAN BERNARDINO COUNTY MUSEUM
DIVISION OF GEOLOGICAL SCIENCES

INVOICE

August 21, 2009

INVOICE: 4001.082109.3

To: PCR Services Corporation, attn: Matthew Gonzalez, Archeological/Paleontological Technician, 233 Wilshire Boulevard, Suite #130, Santa Monica, CA 90401

For: Paleontology Literature/Records Review, 3rd and 5th Street Improvements Project, City of Redlands, San Bernardino County, California

August 21, 2009

RegionalPaleontologicLocality
Inventory records search

1.0 quads @ $200 /quad $ 200.00

Curator

1.0 hours @ $86 /hour $ 86.00

Museum Assistant

1.0 hours @ $40 /hour 40.00

TOTAL DUE: $ 326.00

Please indicate invoice number on check and make check payable to:

ACCOUNTS RECEIVABLE
SAN BERNARDINO COUNTY MUSEUM
2024 ORANGE TREE LANE
REDLANDS CA 92374
APPENDIX D – NAHC SACRED LANDS FILE RECORD SEARCH RESULTS AND NATIVE AMERICAN CONTACT LIST
August 18, 2009

Mr. Matthew Gonzalez, Archaeological/Paleontological Technician
PCR SERVICES CORPORATION
One Venture, Suite 150
Irvine, CA 92618

Sent by FAX to: 949-763-7002
No. of Pages: 4

Re: Request for a Sacred Lands File search and Native American Contacts List for a Proposed 3rd and 5th Street Improvements Project located in the City of San Bernardino, San Bernardino County, California

Dear Mr. Gonzalez:

The Native American Heritage Commission (NAHC), the State of California 'Trustee Agency' for the protection and preservation of Native American cultural resources (c.f. CA Public Resources Code §21070), was able to perform a record search of its Sacred Lands File (SLF) for the affected project area (APE) requested. The California Environmental Quality Act (CEQA) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per the California Code of Regulations §15064.5(b)(c)(f) CEQA guidelines. Section 15382 of the 2007 CEQA Guidelines defines a significant impact on the environment as "a substantial, or potentially substantial, adverse change in any of physical conditions within an area affected by the proposed project, including ...objects of historic or aesthetic significance." The NAHC SLF search did not indicate the presence of Native American cultural resources within one-half - mile radius of the project area (APE) of the proposed project (APE).

This letter includes state and federal statutes relating to Native American historic properties of religious and cultural significance to American Indian tribes and individuals as 'consulting parties' under both state and federal law.

Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries once a project is underway. Enclosed are the names of the nearest tribes and interested Native American individuals that the NAHC recommends as 'consulting parties,' for this purpose, that may have knowledge of the religious and cultural significance of the historic properties in the project area (e.g. APE). We recommend that you contact persons on the attached list of Native American contacts. A Native American Tribe or Tribal Elder may be the only source of information about a cultural resource. Furthermore we suggest that you contact the California Historic Resources Information System (CHRIS) at the Office of Historic Preservation Coordinator's office (at (916) 653-7278, for referral to the nearest Information Center of which there are 11.

Consultation with tribes and interested Native American consulting parties, on the NAHC list, should be conducted in compliance with the requirements of federal NEPA (42 U.S.C. 4321-43351) and Section 106 and 4(f) of federal NHPA (16 U.S.C. 470 [f])et se), and NAGPRA (25 U.S.C. 3001-3013), as appropriate.

Lead agencies should consider avoidance, as defined in Section 15370 of the California Environmental Quality Act (CEQA) when significant cultural resources could be affected by a project. Also, Public Resources Code Section 5097.98 and Health & Safety Code Section 7050.5
provide for provisions for accidentally discovered archeological resources during construction and
mandate the processes to be followed in the event of an accidental discovery of any human remains
in a project location other than a dedicated cemetery. Discussion of these should be included in
your environmental documents, as appropriate.

The response to this search for Native American cultural resources is conducted in the
NAHC Sacred Lands Inventory, established by the California Legislature (CA Public Resources
Code §5097.94(a) and is exempt from the CA Public Records Act (c.f. California Government Code
§6254.10) although Native Americans on the attached contact list may wish to reveal the nature of
identified cultural resources/historic properties. Confidentiality of "historic properties of religious and
cultural significance" may also be protected the under Section 304 of the NHPA or at the Secretary
of the Interior's discretion if not eligible for listing on the National Register of Historic Places. The
Secretary may also be advised by the federal Indian Religious Freedom Act (cf. 42 U.S.C., 1996) in
issuing a decision on whether or not to disclose items of religious and/or cultural significance
identified in or near the site and possibly threatened by proposed project activity.

If you have any questions about this response to your request, please do not hesitate to
contact me at (916) 557-6251.

Sincerely,

Dave Singleton
Program Analyst

Attachment: Native American Contacts List (NOTE: we further recommend that other forms of 'proof of mailing or
proof of contact be utilized instead of 'Return Receipt Requested' Certified or Registered Mail.) Further, we suggest a follow-
up telephone call to the contacts if the replies are not received or need clarification.
Native American Contact
San Bernardino County
August 18, 2009

Pechanga Band of Mission Indians
Paul Macarro, Cultural Resource Center
P.O. Box 1477 Luiseño
Temecula, CA 92593
pmacarro@pechanga-nsn.gov
(951) 308-9295 Ext 8106
(951) 676-2768
(951) 506-9491 Fax

Gabrielino Tongva Nation
Sam Dunlap, Tribal Secretary
P.O. Box 86908
Los Angeles, CA 90086
samdunlap@earthlink.net
(909) 262-9351 - cell

Ramona Band of Cahuilla Mission Indians
Joseph Hamilton, Chairman
P.O. Box 391670 Cahuilla
Anza, CA 92539
admin@ramonatribe.com
(951) 763-4105
(951) 763-4325 Fax

Morongo Band of Mission Indians
Michael Contreras, Cultural Heritage Program Manager
13000 Fields Road Cahuilla
Banning, CA 92220 Serrano
(951) 755-5025
(951) 201-1866 - cell
(951) 922-0105 Fax

San Manuel Band of Mission Indians
James Ramos, Chairperson
26599 Community Center Drive Serrano
Highland, CA 92346
(909) 864-8933
(909) 864-3724 - FAX
(909) 864-3370 Fax

Ann Brierty, Policy/Cultural Resources Department
26599 Community Center Drive Serrano
Highland, CA 92346
abrierty@sanmanuel-nsn.gov
(909) 864-8933 EXT-3250
(909) 610-1585 - cell
(909) 862-5152 Fax

San Manuel Band of Mission Indians
Anthony Morales, Chairperson
PO Box 693 Serrano
San Gabriel, CA 91778
(626) 286-1262 - FAX
(626) 286-1632
(626) 286-1758 - Home
Gabrielino Tongva Gabrieleno Tongva
San Gabriel Band of Mission
PO Box 693 Gabrieleno Tongva
San Gabriel, CA 91778
Gabrielino Tongva
(626) 286-1262 - FAX
(626) 286-1632
(626) 286-1758 - Home
(626) 286-1262 Fax
Serrano Nation of Indians
Goldie Walker
6588 Valaria Drive Serrano
Highland, CA 92346
(909) 862-9883

This list is current only as of the date of this document.
Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7060.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code, and federal NEPA (42 USC 4321-4335), NHPA Sections 106, 4(f) (16 USC 470(f) and NAGPRA (25 USC 3001-3013)

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed 3rd and 6th Street Improvements Project; located in the City of San Bernardino; San Bernardino County, California for which a Sacred Lands File search and Native American Contacts list were requested.
Native American Contact
San Bernardino County
August 18, 2009

Soboba Band of Luiseno Indians
Joseph Ontiveros, Cultural Resources Manager
P.O. Box 487 Luiseno
San Jacinto, CA 92581
jontiveros@soboba-nsn.gov
(951) 654-2765
FAX: (951) 654-4198

Ernest H. Siva
Morongo Band of Mission Indians Tribal Elder
9570 Mias Canyon Road Serrano
Banning, CA 92220 Cahuilla
(951) 849-4676
siva@dishmail.com

This list is current only as of the date of this document.
Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code, and federal NEPA (42 USC 4321-43351), NHPR 106, 4(f) (16 USC 470(f) and NAGPRA (25 USC 3001-3013)

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed 3rd and 5th Street Improvements Project; located in the City of San Bernardino; San Bernardino County, California in which a Sacred Lands File search and Native American Contacts list were requested.
## Summary of Native American Response Letters and Telephone Log

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
<th>Phone/Letters</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Macarro, Paul, Cultural Resource Center</td>
<td>Pechanga Band of Mission Indians.</td>
<td>Letter sent via Certified Mail on August 20, 2009.</td>
<td>On August 28, 2009, Anna Hoover responded on behalf of the Pechanga Band of Mission Indians via telephone and stated that the project area is located outside the traditional Luiseno Territory and the Pechanga wish to defer to the Morongo/San Manuel Bands for this project. However, Mrs. Hoover did mention that if artifacts are found within the project area, and no one from the Morongo/San Manuel Bands are available for whatever reason, the Pechanga are willing to care for them.</td>
</tr>
<tr>
<td>Dunlap, Sam, Tribal Secretary</td>
<td>Gabrielino/Tongva Nation</td>
<td>Letter sent via Certified Mail on August 20, 2009.</td>
<td>No response to date.</td>
</tr>
<tr>
<td>Contreras, Michael, Cultural Heritage Programs Manager</td>
<td>Morongo Band of Mission Indians</td>
<td>Letter sent via Certified Mail on August 20, 2009.</td>
<td>No response to date.</td>
</tr>
<tr>
<td>Brierty, Ann, Policy/Cultural Resources Department</td>
<td>San Manuel Band of Mission Indians</td>
<td>Letter sent via Certified Mail on August 20</td>
<td>No response to date.</td>
</tr>
<tr>
<td>Joseph Ontiveros, Cultural Resources Manager</td>
<td>Soboba Band of Luiseno Indians</td>
<td>Letter sent via Certified Mail on August 20</td>
<td>Letter received on August 27, 2009 stating that although the project area is outside the existing reservation, the project area does fall within the bounds of their Tribal Traditional Use Areas. However, at this time, the Soboba Band does not have any specific concerns regarding the project, but they also wish to defer to the San Manuel Band of Mission Indians.</td>
</tr>
</tbody>
</table>

*Source: PCR Services Corporation 2009 (As of September 23, 2009)*
August 27, 2009

Attn: Mathew Gonzalez
PCR Services Corporation
233 Wilshire Blvd., Suite 130
Santa Monica, CA 90401

Re: Proposed 3rd and 5th Street Improvements Project, San Bernardino County, CA

The Soboba Band of Luiseño Indians appreciates your observance of Tribal Cultural Resources and their preservation in your project. The information provided to us on said project(s) has been assessed through our Cultural Resource Department, where it was concluded that although it is outside the existing reservation, the project area does fall within the bounds of our Tribal Traditional Use Areas. At this time the Soboba Band does not have any specific concerns regarding this project, but wishes to defer to the San Manuel Band of Mission Indians (909-864-8933).

[SPECIAL NOTE (for projects other than cell towers): If this project is associated with a city or county specific plan or general plan action it is subject to the provisions of SB18-Traditional Tribal Cultural Places (law became effective January 1, 2005) and will require the city or county to participate in formal, government-to-government consultative with the Tribe. If the city or county are your client, you may wish to make them aware of this requirement. By law, they are required to contact the Tribe.

Sincerely,

[Signature]

Joseph Ontiveros
Soboba Cultural Resource Department
P.O. Box 487
San Jacinto, Ca 92581
Phone (951) 654-5544 ext. 4137
Cell (951) 663-5279
jontiveros@soboba-nsn.gov
Memorandum

TO: Team Archaeo
CC: Anna Hoover, Pechanga Cultural Resources Department
FROM: Anna Hoover, Pechanga Cultural Resources Department
RE: 3RD AND 5TH ST. IMPROVEMENT PROJECT

DATE: September 23, 2009

Anna Hoover contacted Matthew Gonzalez August 28, 2009 regarding the 3rd and 5th Street Improvement project in San Bernardino County. Mrs. Hoover mentioned that this project area is located outside the traditional Luiseno Territory and the Pechanga wish to defer to the Morongo/San Manuel Bands for this project. However, Mrs. Hoover did mention that if artifacts are found within the project area, and no one from the Morongo/San Manuel Bands are available for whatever reason, the Pechanga are willing to care for them.
**PCR Irvine**
One Venture
Suite 150
Irvine, California 92618
TEL 949.753.7001
FAX 949.753.7002
PCRinfo@pcrnet.com

**PCR Santa Monica**
233 Wilshire Boulevard
Suite 130
Santa Monica, California 90401
TEL 310.451.4488
FAX 310.451.5279
PCRinfo@pcrnet.com

**PCR Pasadena**
55 South Lake Avenue
Suite 215
Pasadena, California 91101
TEL 626.204.6170
FAX 626.204.6171
PCRinfo@pcrnet.com