DRAFT ENVIRONMENTAL IMPACT REPORT

CITY OF BANNING CIRCULATION ELEMENT GENERAL PLAN AMENDMENT

CITY OF BANNING, CALIFORNIA

SCH NO. 2012011008

Submitted to:

City of Banning
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LSA

September 2012

TABLE OF CONTENTS

APPENDICES

FIGURES AND TABLES

FIGURES

TABLES

1.0 EXECUTIVE SUMMARY

1.1 INTRODUCTION

This Executive Summary has been prepared according to the California Environmental Quality Act (CEQA) Guidelines Section 15123 for the City of Banning (City) Environmental Impact Report (EIR) for the proposed City of Banning Circulation Element General Plan Amendment (project). This EIR has been prepared by the City to analyze the proposed project's potentially significant impacts on the environment as determined by the findings of the Initial Study (IS) for the proposed project completed January 2102; to discuss alternatives; and to propose mitigation measures for identified potentially significant impacts that will minimize, offset, or otherwise reduce or avoid those environmental impacts.

1.2 SUMMARY OF PROJECT DESCRIPTION

The project is located in the City. The City is located in the San Gorgonio Pass area and is served by Interstate 10 (I-10), as well as a network of arterial roadways and local streets as shown in Figure 3.1 and 3.2 in Chapter 3.0, Project Description. I-10 is an eight-lane divided freeway that runs through Banning, bisecting it into south and north communities. Malki Road (formerly Fields Road), Ramsey Street, Hargrave Street, 8th Street, 22nd Street, Sunset Avenue, and Highland Springs Avenue are the access streets that provide interchange access to I-10.

The proposed project includes a policy change in regard to the City's adopted roadway Level of Service (LOS) standards and the replacement of the future I-10/Highland Home Road interchange with an overcrossing. Unlike a typical development project, this type of policy change does not have the potential to result in physical changes to a specific project location, but rather is a policy change that would impact the thresholds for analysis of future projects.

1.3 BACKGROUND AND HISTORY

1.3.1 City of Banning – Existing General Plan Circulation Element

The City General Plan Circulation Element standard provides that LOS C is the upper limit of satisfactory operations, except for intersections along Ramsey Street, where LOS D is considered satisfactory. Mitigation is required for any intersections in which any project traffic causes the intersection to deteriorate from satisfactory to unsatisfactory operation. The City does not have an adopted criterion that defines significant impact at an existing deficient intersection; therefore, a conservative criterion was developed to address this potential condition. If an intersection is already operating at an unsatisfactory LOS, any increase in delay due to the addition of one or more cars is considered a significant project impact.

1.4 PROJECT DESCRIPTION

The City is proposing to amend the General Plan Circulation Element. The proposed General Plan Amendment (GPA) includes a change to the acceptable LOS for roadway operating conditions from LOS C to LOS D. Additionally, the City is proposing to replace the designated interchange improvement at the I-10/Highland Home Road shown in the existing General Plan Street System identified in Exhibit III-6 in the Circulation Element and shown in Figure 3.3, in Chapter 3.0, Project description, with an overcrossing. The objectives for the proposed project include the following:

- Update the City's General Plan Circulation Element to be consistent with adjacent jurisdictions' LOS D standards to more efficiently manage the operation of arterials, particularly where roadways are under multiple local jurisdictions.
- Provide consistency between the City's General Plan Circulation Element and the County's General Plan Circulation Element relative to Highland Home Road/I-10.

1.5 AREAS OF CONTROVERSY

Pursuant to Section 15123 of the State CEQA Guidelines, an EIR shall identify areas of controversy known to the Lead Agency, including issues raised by agencies and the public. Comments on the Notice of Preparation (NOP) from agencies and the public were received by the Lead Agency and are located in Appendix A of this EIR. Concerns raised by agencies and the public include the following issues, each of which is addressed in Section 4.0 of this EIR:

- Temporary construction impacts to traffic circulation near schools operated by the City of Beaumont Unified School District
- Compatibility with the County's circulation element including designated emergency evacuation routes

1.6 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

With adoption of the GPA and incorporation of the roadway improvements included as part of the project, the proposed project would not result in any significant unavoidable adverse impacts.

1.7 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Table 1.1 identifies the project environmental impacts, the proposed mitigation measures, and the level of significance after mitigation is incorporated into the project. The table also identifies cumulative impacts resulting from build out of the proposed project in conjunction with the approved and pending cumulative projects. Environmental topics addressed in this EIR include: Air Quality, Cultural Resources, Land Use and Planning, Noise, and Transportation and Circulation.

Refer to Section 2.3, Initial Study/Notice of Preparation, of this EIR for a discussion of additional impacts found not to be significant through preliminary analysis conducted for the IS and the scoping process.

Table 1.1: Summary of Project-Specific Impacts, Mitigation Measures, and Level of Significance

Potential Environmental Effect	Mitigation Measure or Standard Condition	Level of Significance After Mitigation
4.1: AIR QUALITY		
Construction Impacts. The proposed project does not include any specific construction activities within the City. Therefore, no impacts from emissions as a result of construction activities would occur. **Long-Term Regional Air Quality Impacts.** The proposed General Plan Amendment would slightly reduce the emissions within the region due to the redistribution of traffic. Therefore, the proposed project would not contribute substantially to regional vehicle emissions, and impacts to air quality are considered less than significant. **Long-Term Microscale (CO Hot Spot) Analysis.** No CO hot spots would occur as a result of the proposed project. Therefore, impacts on local air quality for CO are not considered significant. **Air Quality Management Plan Consistency.** The proposed project would not generate any emissions that exceed the SCAQMD's thresholds. Therefore, the proposed project is consistent with the regional AQMP, and impacts related to this threshold are less than significant.	The proposed project would result in less than significant air quality impacts. Therefore, mitigation measures are not required.	Less than significant
4.2: CULTURAL RESOURCES		
There are no potentially significant impacts related to historical, paleontological, or archaeological resources as part of the proposed project because the project is limited to policy changes to the City's Circulation Element of the General Plan and does not include any grading or excavation activities. In addition, based on the SB 18 Native American consultation conducted as part of the proposed project, there were no cultural resources identified by the NAHC and local tribes contacted as part of the process. Therefore, the proposed project is considered to have a less than significant impact to historical or archaeological resources, as defined in CEQA Guidelines Section 15064.5.	No potentially significant impacts to cultural resources have been identified and, therefore, no mitigation measures are required.	Less than significant

Table 1.1: Summary of Project-Specific Impacts, Mitigation Measures, and Level of Significance

Potential Environmental Effect	Mitigation Measure or Standard Condition	Level of Significance After Mitigation
4.3: GREENHOUSE GAS		
The proposed project would result in small decreases (less than 1 percent) in CO_2 emissions within the region when compared to the existing General Plan conditions. Therefore, the proposed project would not contribute substantially to regional greenhouse gas emissions. Because the proposed project would not increase GHG emissions, it would not conflict with any applicable plan, policy, or regulation of any agency adopted for the purpose of reducing emissions of greenhouse gas. As a result, impacts to GCC as a result of the proposed project are considered less than significant.	The proposed project would result in less than significant GCC impacts, and no mitigation measures are required.	Less than significant
4.4: LAND USE		
The proposed project, after the approval and discretionary approvals necessary to adopt the General Plan Amendment, will be consistent with the applicable goals, policies, and programs in the City's General Plan (specifically, with revisions made to Program 4.C and Policies 5 and 6).	Land use impacts are considered less than significant, and no mitigation measures are required.	Less than significant
4.5: NOISE		
Short-Term Construction Noise Impacts. The proposed project does not include any specific construction activities within the City. Therefore, no short-term noise impacts from construction would occur. **Long-Term Traffic Noise Impacts.** The long-term noise level increases resulting from the proposed project are considered small and not perceptible by the human ear. Therefore, project-related long-term traffic noise impacts under the proposed project would be considered less than significant. **Long-Term Operational Noise Impacts.** The proposed project is projected to result in a small decrease in noise levels along several roadways compared to the existing General Plan. Therefore, impacts from noise are considered less than significant, and no mitigation measures are required.	The proposed project would result in less than significant noise impacts. Therefore, mitigation measures are not required.	Less than significant

Table 1.1: Summary of Project-Specific Impacts, Mitigation Measures, and Level of Significance

Potential Environmental Effect	Mitigation Measure or Standard Condition	Level of Significance After Mitigation
4.6: TRANSPORTATION AND CIRCULATION		
Level of Service Criteria Change. Approval of the LOS D standard would make the City's policy consistent with the County and other jurisdictions in the region. Therefore, the proposed LOS Criteria Change from LOS C to LOS D, once approved, would not exceed the LOS standards established by the County or adjacent jurisdictions. With adoption of the LOS D criteria, impacts related to this threshold are therefore considered less than significant. **Proposed I-10/Highland Home Road Overcrossing Conditions (LOS D).** With adoption of the proposed GPA and inclusion of the intersection improvements identified as part of the proposed project, the project would result in an acceptable LOS during both peak hours. Further, if LOS D is adopted as the acceptable City LOS standard, fewer roadway improvements would be required to improve the intersection deficiencies, resulting in fewer physical impacts and less right-of-way acquisition. In addition, construction of the I-10/Highland Home Road interchange (the current General Plan designated improvement) is not consistent with the recommendations in the PARTNAR or the County of Riverside General Plan, which shows an overcrossing at this location. For the reasons stated above, the proposed GPA project would not result in an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system, or exceed, either individually or cumulatively, a LOS standard established by the County CMA for designated roads or highways. Therefore, impacts would be considered less than significant with adoption of the intersection improvements identified as part of the proposed project.	With adoption of the LOS D criteria and inclusion of the intersection improvements included as part of the proposed project, the project would have less than significant impacts related to traffic and circulation, and no mitigation is required.	Less than significant

AQMP = Air Quality Management Plan
CEQA = California Environmental Quality Act
CMA = Congestion Management Agency
CO = carbon monoxide
CO_2 = carbon dioxide
GCC = global climate change
GPA = General Plan Amendment
I-10 = Interstate 10
LOS = level of service
NAHC = Native American Heritage Commission
PARTNAR = Pass Area Regional Transportation Needs Assessment Report
SB = Senate Bill
SCAQMD = South Coast Air Quality Management District

2.0 INTRODUCTION

2.1 INTRODUCTION

This Environmental Impact Report (EIR) has been prepared to evaluate the specific and cumulative environmental impacts associated with the proposed City of Banning Circulation Element General Plan Amendment (project). The City of Banning (City) is the Lead Agency with authority to prepare this EIR and, after completion of the public comment/response process, is the Certifying Agency for the Final EIR (FEIR). This EIR is intended to serve as an informational document to be considered by the City and the Responsible Agencies during deliberations on the proposed project.

An Initial Study (IS) prepared by the City indicated that the proposed project may have a significant effect on the environment and that an EIR would be required to more fully evaluate potentially adverse environmental impacts that may result from implementation of the project. As a result, this EIR has been prepared in accordance with the California Environmental Quality Act of 1970 (CEQA), as amended (Public Resources Code [PRC], Section 21000 et seq.), and the State CEQA Guidelines for Implementation of CEQA (California Code of Regulations [CCR], Title 14, Section 15000 et seq.). This EIR also complies with the procedures established by the City for implementation of CEQA.

2.2 PURPOSE OF THE EIR

The purpose of this EIR is to inform decision-makers and the general public of any significant adverse environmental effects associated with the anticipated actions for the proposed project and to identify appropriate and feasible mitigation measures and alternatives that may be adopted to minimize or eliminate any significant adverse project or cumulative effects. The EIR also includes consideration of alternatives to the proposed project that avoid or minimize identified potentially significant impacts.

2.3 INITIAL STUDY/NOTICE OF PREPARATION

On January 6, 2012, an IS/Notice of Preparation (NOP) for the proposed project was distributed by the City to the State Clearinghouse (SCH), local and regional agencies, and interested groups and persons. The SCH issued a project number for the EIR (SCH No. 2012011008). In accordance with State CEQA Guidelines, Section 15082, the IS/NOP was circulated to the potential Responsible and Trustee Agencies and interested parties for a period of 31 days, during which time written comments were solicited pertaining to environmental issues/topics that the Draft EIR should evaluate. The IS/NOP and distribution list are provided in Appendix A. Comment letters were received from public agencies and interested parties and are also provided in Appendix A.

Key issues raised by these commentators include (1) temporary construction impacts to traffic circulation; (2) cultural impacts; and (3) compatibility with the County of Riverside's (County) circulation element that includes designated emergency evacuation routes.

The City held a public scoping meeting on January 17, 2012, to present the proposed project and to solicit input from interested individuals regarding environmental issues that should be addressed in this Draft EIR. An NOP was issued along with the IS on January 6, 2012, to the general public. The NOP stated that a public meeting for the proposed project would be held from 6:00 p.m. to 7:00 p.m. on January 17, 2012, in the City Council Chambers located at 99 E. Ramsey Street, Banning, California 92220. No members from the public were in attendance at the public scoping meeting. Therefore, no additional environmental issues or concerns were raised at the scoping meeting.

The Draft EIR addresses each of these areas of concern or controversy in detail, examines project-related and cumulative environmental impacts, identifies potential significant adverse environmental impacts, and proposes mitigation measures designed to reduce or eliminate potentially significant impacts.

2.4 EFFECTS FOUND NOT TO BE SIGNIFICANT

As required by State CEQA Guidelines, Section 15128, this Draft EIR must identify effects of the proposed project determined to be significant. The IS prepared by the City determined that the following environmental effects of the proposed project will not be significant. These issues are briefly discussed below along with the reasons they were determined not to be significant. For further information and additional discussion, please refer to the IS and the NOP in Appendix A of this Draft EIR.

2.4.1 Aesthetics

The proposed project is a policy change in regard to the City's adopted level of service (LOS) and the replacement of the future Interstate 10 (I-10)/Highland Home Road interchange with an overcrossing. This type of policy change does not have the potential to result in a substantial adverse effect on a scenic vista or a scenic highway. There are no known scenic vistas, State scenic highways, scenic highways, or local scenic expressways with views on or within the vicinity of the project roadways. The project occurs mostly in an urbanized area where there are no natural scenic vistas in the immediate vicinity. The interchange and roadway networks in the City are surrounded by development and contain no natural scenic features in their immediate vicinity. Therefore, no impacts to scenic vistas, scenic highways, eligible scenic highways, or local scenic expressways are projected to occur. Therefore, these topics will not be reviewed further in this EIR.

In addition, this type of policy change would not have the potential to degrade the existing visual character or quality of a specific project site. Typically, aesthetic impacts are associated with the presence of sensitive viewers (i.e., residential and recreational land uses and designated scenic roadways) within the project vicinity. The surrounding land uses around the location of the I-10/ Highland Home Road interchange include limited residential and recreational uses; however, the majority of uses along major roadway networks and the freeway interchange are commercial land uses. This type of policy change would also not create a new source of light and glare above and beyond what is typically associated with roadways. Therefore, no impacts to visual character or to

day or nighttime views would occur as part of the proposed project, and this topic will not be reviewed further in this EIR.

2.4.2 Agricultural Resources

The proposed project is generally a policy change in regard to the City's adopted LOS and the replacement of the future I-10/Highland Home Road interchange with an overcrossing. This type of policy change would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance; conflict with existing zoning for agricultural use; impact any site subject to a Williamson Act Contract; or result in a conversion of farmland to nonagricultural use. Therefore, the project would have no impact on farmland, agricultural resources, or agricultural zoning that would occur, and these topics will not be reviewed further in this EIR.

In addition, this type of policy change would not result in the loss of forest land or conversion of forest land to nonforest use and would not impact farmland or land designated as forest land. As the project roadways are not zoned as farmland or forest land and not currently used for agricultural or timber purposes, no impacts are anticipated, and these topics will not be reviewed further in this EIR.

2.4.3 Biological Resources

The proposed project is a policy change in regard to the City's adopted LOS and the replacement of the future I-10/Highland Home Road interchange with an overcrossing. This type of policy change does not have the potential to impact candidate, sensitive, or special-status species, wetlands, or the Natural Communities Conservation Plan/Habitat Conservation Plan (NCCP/HCP), since it does not result in site-specific physical changes.

The proposed elimination of the Highland Home Road interchange and the replacement of the future I-10/Highland Home Road interchange with an overcrossing is anticipated to result in fewer impacts to potential candidate, sensitive, or special-status species, wetlands, or impact the NCCP/HCP because the overcrossing would require less land disturbance to areas that potentially support such species or potential wetland areas. As a result, the elimination of the interchange would create fewer impacts to candidate, sensitive, or special-status species and wetlands than the existing designated freeway interchange. Therefore, these topics will not be reviewed further in this EIR.

In addition, the future interchange site has been completely developed and is surrounded by existing development and the I-10. The site is not serving as a significant wildlife movement corridor because of its location and surrounding development. Therefore, the project would have no impact on wildlife movement and will not be reviewed further in this EIR.

2.4.4 Geology and Soils

The proposed project involves a policy change in regard to the City's adopted LOS and the replacement of the future I-10/Highland Home Road interchange with an overcrossing. This type of policy change does not have the potential to result in physical changes that would be impacted by a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, or other geologic conditions, such as ground shaking, liquefaction, landslides, soil erosion, or

subsidence. The proposed General Plan Amendment (GPA) change of the future interchange designation to an overcrossing would have similar impacts in terms of known geologic hazards. Therefore, this topic will not be reviewed further in this EIR.

2.4.5 Hazards and Hazardous Materials

The project is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. This topic will not be reviewed further in this EIR. In addition, the proposed project does not result in physical changes that would cause an impact by the release or exposure to a hazard or hazardous material. The proposed replacement of the future interchange with an overcrossing would have similar impacts in terms of hazards and hazardous waste. Therefore, the project is anticipated to have a less than significant impact with respect to the transport, use, and disposal of hazardous materials, and these topics will not be reviewed further in this EIR.

Since no road construction is required as part of this proposed project, it is not anticipated that implementation of the proposed policy changes would result in emissions/handling of hazardous materials beyond existing conditions. Therefore, no impact is expected, and this topic will not be reviewed further in this EIR.

This type of policy change does not have the potential to result in physical changes that would present a safety hazard related to aircraft or airport operations. The proposed project is located within 2 miles (mi) of the Banning Municipal airport. However, the proposed LOS policy change and the replacement of the future planned Highland Home Road interchange with an overcrossing would not present a safety hazard related to aircraft or airport operations. This topic will not be reviewed further in this EIR.

The proposed project would not physically interfere with or disrupt the use of an evacuation route or result in impacts due to wildland fires. The project area is not located within a High Fire Hazard Zone. Therefore, the project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires, and this topic will not be reviewed further in this EIR.

2.4.6 Hydrology and Water Quality

The proposed project is a policy change in regard to the City's adopted LOS and the replacement of the future I-10/Highland Home Road interchange with an overcrossing. This type of policy change does not have the potential to result in physical changes that would result in water quality impacts or in groundwater or groundwater quality impacts. The proposed replacement of the future I-10/ Highland Home Interchange to an overcrossing in the General Plan Circulation Element would not involve construction activities; therefore, the project would not impact construction or operation in terms of water quality or groundwater quality. Therefore, the project is not anticipated to impact water quality or groundwater quality, and these topics will not be reviewed further in this EIR.

The proposed project is not a development project and does not have the potential to result in physical changes that would result in water quality impacts due to erosion or flooding or place housing in the 100-year flood zone. Therefore, the project is not anticipated to impact drainage patterns or a flood zone, and these topics will not be reviewed further in this EIR.

As discussed previously, the project would not involve the construction of a structure or structures and, therefore, would not be affected by failure of a levee or dam. In addition, the proposed project is not located near a water body capable of causing a seiche or mudflow conditions. Therefore, no impacts relating to a levee or dam failure or exposure of people or structures to a significant risk of loss by inundation by seiche or mudflow are anticipated, and these topics will not be reviewed further in this EIR.

2.4.7 Mineral Resources

The proposed project is a policy change in regard to the City's adopted LOS and the replacement of the future I-10/Highland Home Road interchange with an overcrossing. This type of policy change does not have the potential to impact mineral resources since it does not result in physical changes to a specific site. In addition, according to the City's General Plan, the project is not located within a mineral resource area. Therefore, it is highly unlikely that the project would impact mineral resources that would be of value to the region and the residents of the State. Therefore, this topic will not be reviewed further in this EIR.

2.4.8 Population and Housing

Residential and business uses are not proposed as part of the proposed project. Implementation of the proposed project would not induce substantial population growth either directly or indirectly, involve the displacement of existing housing, or involve the displacement of substantial numbers of people, thereby necessitating the construction of replacement housing. Therefore, this topic will not be reviewed further in the EIR.

2.4.9 Public Services

The proposed project does not have the potential to result in physical changes or development that would create the need for additional services for fire protection, police protection, schools, parks, and other public facilities such as libraries and transit services. The proposed change in LOS from LOS C to LOS D has the potential to slow response times for fire protection and police protection. However, it not anticipated that this change would be substantially different from existing conditions. In addition, the replacement of the future I-10/Highland Home Road interchange with an overcrossing would not impact the provision of public services because no additional development is proposed. As a result, impacts to fire protection, police protection, public education, public parks, public libraries, and public transit are anticipated to be less than significant. This topic will not be reviewed further in this EIR.

2.4.10 Recreation

The proposed project includes a change to the acceptable LOS for roadway operating conditions from LOS C to LOS D. Additionally, the project involves the replacement of the future I-10/Highland Home Road interchange with an overcrossing. The project does not propose the construction of any residential buildings; therefore, it will not directly create a demand for recreation facilities, nor will it contribute to the deterioration of existing recreational facilities. No impact to existing recreational facilities is projected to occur. Therefore, this topic will not be reviewed further in this EIR.

2.4.11 Utilities and Service Systems

The proposed GPA project does not have the potential to result in physical changes or create new development that would result in the need for or impact existing utilities and service systems. The project would not result in any utility or service systems increase, nor would it impact existing utility and service systems. Therefore, this topic will not be reviewed further in this EIR.

2.5 FORMAT OF THE EIR

Pursuant to State CEQA Guidelines, Section 15120(c), this Draft EIR contains the information and analysis required by Sections 15122 through 15131. Each of the required elements is covered in one of the Draft EIR chapters described below.

2.5.1 Chapter 1.0: Executive Summary

Chapter 1.0 contains the Executive Summary of the Draft EIR document, which lists all significant project impacts, mitigation measures that have been recommended to reduce any significant impacts of the proposed project, the level of significance of each impact following mitigation, and alternatives that would reduce or avoid effects found to be significant. The summary is presented in a matrix (tabular) format.

2.5.2 Chapter 2.0: Introduction

Chapter 2.0 contains (1) a discussion of the purpose and intended use of the Draft EIR; (2) a summary of the project description and NOP process; (3) the intended uses of the EIR; and (4) the areas of controversy known to the Lead Agency, including issues raised by the public. A summary discussion of effects found not to be significant and, therefore, not included in the Draft EIR analysis, is also included in this chapter.

2.5.3 Chapter 3.0: Project Description

Chapter 3.0 includes (1) a discussion of the project's geographical setting; (2) the project background; (3) the project's objectives, characteristics, and components; (4) and the intended use of the EIR.

2.5.4 Chapter 4.0: Environmental Analysis, Impacts, and Mitigation Measures

Chapter 4.0 includes an analysis of the project's environmental impacts. It is organized into the following topical sections: Air Quality, Cultural Resources, Greenhouse Gases, Land Use and Planning, Noise, and Transportation and Circulation. The environmental setting discussions describe the "existing conditions" of the environment on the project site and in the vicinity of the site as they pertain to the environmental issues being analyzed (Section 15125 of the State CEQA Guidelines).

The project impact discussions identify and focus on the potentially significant environmental effects of the proposed project. The direct and indirect significant effects of the project on the environment are identified and described, giving due consideration to both the short-term and long-term effects as necessary (Section 15126.2[a] of the State CEQA Guidelines).

The proposed project is essentially a cumulative level analysis because the project involves the entire City of Banning and is based on the General Plan build out of the City.

The discussions of mitigation measures identify and describe feasible measures that could minimize or lessen significant adverse impacts for each significant environmental effect identified in the Draft EIR (Section 15126[e] of the State CEQA Guidelines). The level of significance after mitigation is reported in each section. Unavoidable adverse effects are identified where mitigation is not expected to reduce the effects to insignificant levels.

2.5.5 Alternatives to the Proposed Project

In accordance with CEQA, the Alternatives discussion in Chapter 5.0 describes a reasonable range of alternatives that could feasibly attain the basic objectives of the project and are capable of eliminating any significant adverse environmental effects or reducing them to a less than significant level. The alternatives analyzed in Chapter 5.0 include: (1) No Project/Existing General Plan Conditions; (2) Highland Home Road Interchange with LOS D; (3) Highland Home Road Overcrossing with LOS C; and (4) No Highland Home Road Connection with LOS D. As specified in State CEQA Guidelines Section 15126.6(f)(2), this chapter identifies and assesses potential alternatives within the City that could accommodate the proposed project.

2.5.6 Chapter 6.0: Long-Term Implications of the Project and Growth-Inducing Impacts

Chapter 5.0 includes CEQA-mandated discussions on the following topics as required by Section 15126 of the State CEQA Guidelines: (1) the relationship between local short-term uses of the environment; (2) significant irreversible environmental changes that would result from implementation of the proposed project; and (3) growth-inducing impacts of the proposed project.

2.5.7 Chapter 7.0: Mitigation Monitoring and Reporting Program

Chapter 6.0 provides a list of all proposed project mitigation measures, defines the party responsible for implementation, and identifies the timing for implementation of each control measure.

2.5.8 Chapters 8.0 and 9.0: List of Preparers and References

Chapters 8.0 and 9.0 provide the Draft EIR preparers, the technical report authors, and other experts included in preparation of the Draft EIR, and the references used in the Draft EIR.

2.6 INCORPORATION BY REFERENCE

As permitted in Section 15150 of the State CEQA Guidelines, this Draft EIR has referenced several technical studies, analyses, and reports. Information from the documents that have been incorporated by reference has been briefly summarized in the appropriate section(s) of this Draft EIR along with a description of how the public may obtain and review these documents. All documents incorporated by reference are also available for review at the City of Banning, Community Development, 99 E. Ramsey Street, Banning, California 92220. These documents include:

- City of Banning General Plan, Adopted January 2006.
- Traffic Impact Analysis, Banning General Plan Amendment Change in Level of Service Policy, March 2012.
- Traffic Impact Analysis, Banning General Plan Amendment Redesignation of Highland Home Road at I-10 from an Interchange to an Overcrossing, March 2012.
- Air Quality Analysis, Banning General Plan Amendment, September 2012.
- Noise Impact Study, Banning General Plan Amendment, September 2012.

2.7 INTENDED USES OF THE EIR

This Draft EIR has been prepared to analyze and disclose the potential environmental effects associated with the implementation of the Banning Circulation Element GPA. An EIR is an informational document intended to inform decision-makers and the general public of the potential significant environmental impacts of a project. An EIR also identifies possible ways to reduce or avoid significant impacts and describes reasonable alternatives to the project. The CEQA Lead Agency has the authority to approve or deny the proposed project (see Chapter 3.0 for a description of the project). The City of Banning, as Lead Agency, will consider the information in this EIR along with other information before taking any action regarding the update of the City's General Plan Circulation Element

2.8 CONTACT PERSON

The City is the Lead Agency for the EIR for the proposed project. Questions regarding the preparation of this report and review of the project should be referred to the following person:

City of Banning
Zai Abu Bakar
Community Development Director
99 E. Ramsey Street
Banning, California 92220
Phone: (951) 922-3131
Fax: (951) 922-3128

3.0 PROJECT DESCRIPTION

3.1 INTRODUCTION

This Environmental Impact Report (EIR) has been prepared to evaluate environmental impacts that may result from implementation of a proposed General Plan Amendment (GPA) to the City of Banning's (City) Circulation Element (project). The City, as the Lead Agency, has the authority to prepare this Draft EIR and, after the comment/response process, consider certification of the Final EIR (FEIR) and approval of the proposed project.

3.2 PROJECT SETTING AND SITE DESCRIPTION

3.2.1 Project Setting

The project is located in the City. The City is located in the San Gorgonio Pass area and is served by Interstate 10 (I-10) as well as a network of arterial roadways and local streets (Figures 3.1 and 3.2). I-10 is an eight-lane divided freeway that runs through Banning, bisecting it into south and north communities. Malki Road (formerly Fields Road), Ramsey Street, Hargrave Street, 8th Street, 22nd Street, Sunset Avenue, and Highland Springs Avenue are the access streets that provide interchange access to I-10.

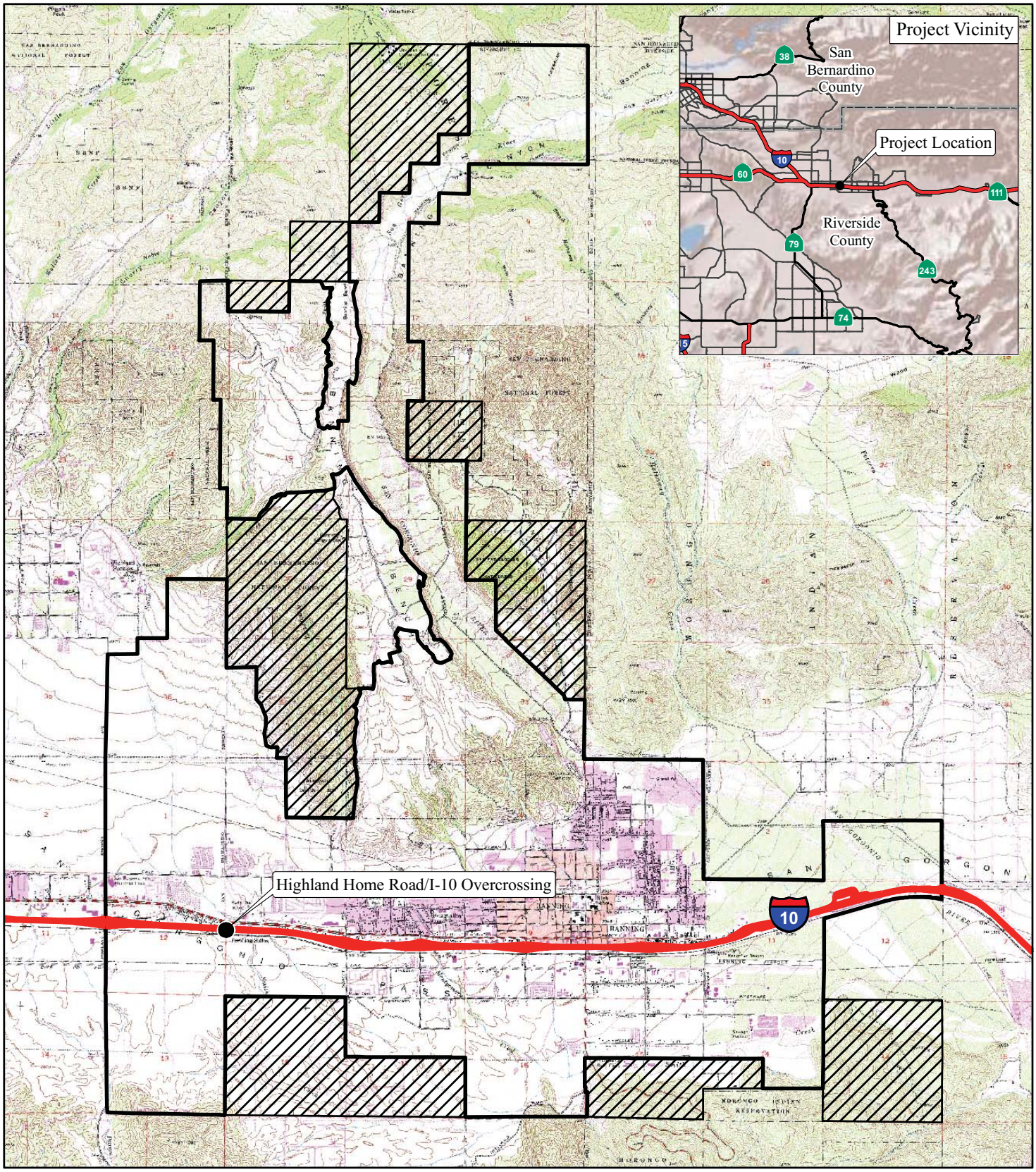
The proposed project includes a policy change in regard to the City's adopted roadway level of service (LOS) standards and the replacement of the future Highland Home Road/I-10 interchange with an overcrossing. Unlike a typical development project, this type of policy change does not have the potential to result in physical changes to a specific project location, but rather is a policy change that would impact the thresholds for analysis of future projects.

3.3 PROJECT DESCRIPTION

The City is proposing to amend the General Plan Circulation Element. The GPA would include two components: a policy change to the acceptable LOS for roadway operating conditions from LOS C to LOS D throughout the City; and replacement of the future planned I-10/Highland Home Road interchange with an overcrossing.

3.3.1 LOS Change

The General Plan Circulation Element standard currently provides that LOS C is the upper limit of satisfactory operations except for intersections along Ramsey Street and at all I-10 interchange intersections, where LOS D is considered satisfactory. Mitigation is required for any intersections where any project traffic causes the intersection to deteriorate from satisfactory to unsatisfactory operation. The proposed project would make LOS D the acceptable LOS for all intersections in the City.



LSA

LEGEND

- Highland Home Road/I-10 Overcrossing
- City of Banning Limits
- City of Banning Sphere of Influence

N

0 3000 6000
FEET

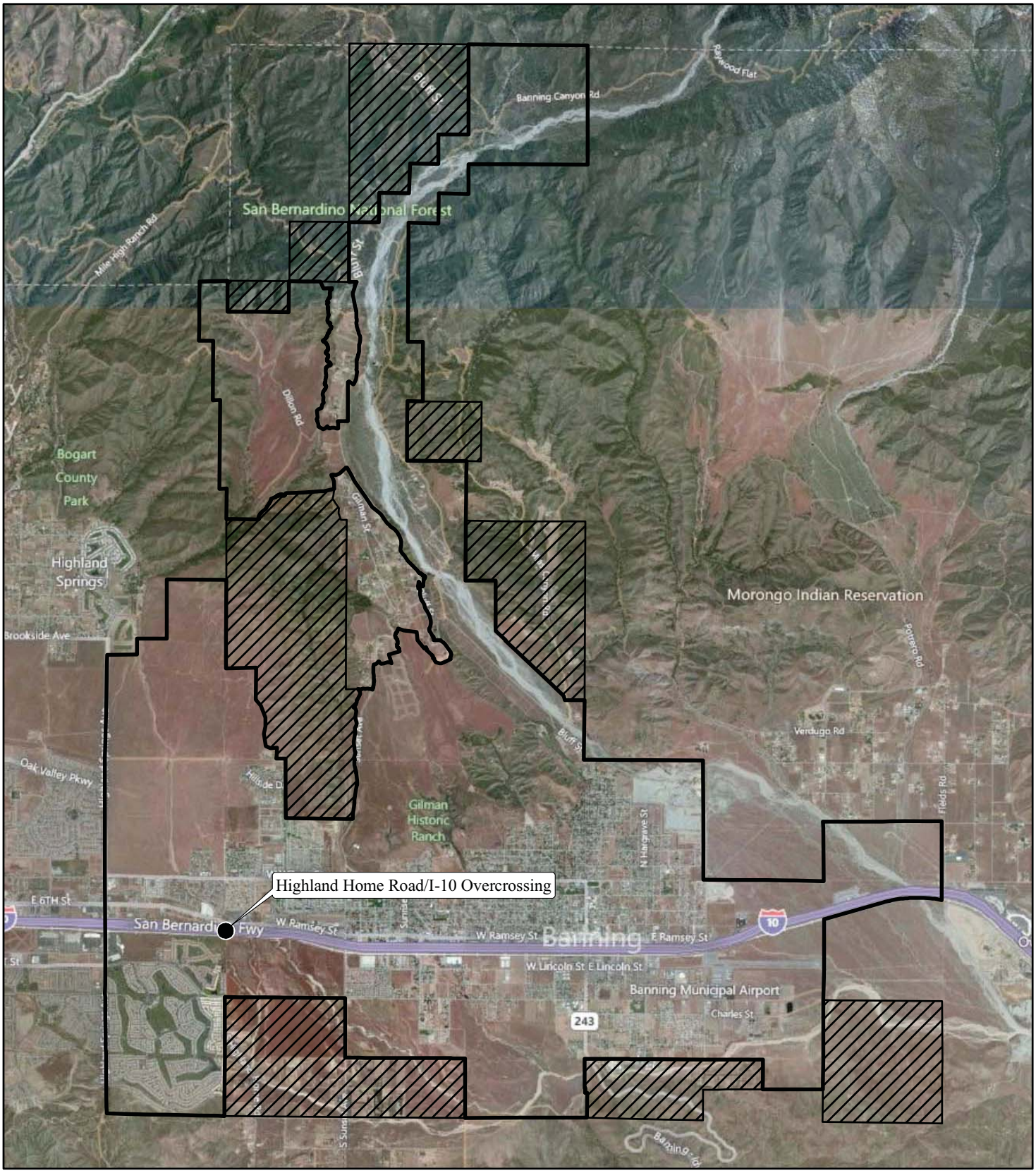
FIGURE 3.1

City of Banning Circulation Element General Plan Ammendment

Project Location

SOURCE: USGS 7.5' Quad - Beaumont (1988), Cabazon (1988), Forest Falls (1994), CA; Riverside LAFCO (2006); SCAG (2008)

I:\COB1101\G\Location.cdr (4/23/12)



LSA

LEGEND

- Highland Home Road/I-10 Overcrossing
- City of Banning Limits
- City of Banning Sphere of Influence

0 3000 6000
FEET

FIGURE 3.2

City of Banning Circulation Element
General Plan Ammendment

Project Aerial

SOURCE: Bing Maps (c.2010), Riverside LAFCO (2006), SCAG (2008)

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The LOS C standard is inconsistent with adjacent jurisdictions such as the County of Riverside (County) and the City, which results in difficulties managing the operation of arterials that traverse multiple jurisdictions. For example, the City of Beaumont has established LOS D as a target LOS standard and LOS E as a threshold standard (*Beaumont Circulation Element Policy 10*). Currently, the intersection configuration required to maintain the LOS standard at each location is different for both the Cities of Beaumont and Banning, since the LOS standard is different. The LOS policy change from C to D as part of the proposed project would make the City's LOS standard the same as the City of Beaumont.

The acceptable LOS criterion for the County is LOS C along all County-maintained roads and conventional State highways, with an exception of LOS D, which may be allowed in Community Development areas at intersections of any combination of Secondary Highways, Major Highways, Urban, Expressways, conventional State highways, or freeway ramp intersections. LOS E may be allowed in designated community centers to the extent that it would support transit-oriented development and walkable communities.

Per the County General Plan, the City of Banning is included in a Community Development area; thus, the applicable LOS standard for the region within the City would be LOS D. The LOS policy change from C to D would make the City's policy consistent with the County and other jurisdictions in the region.

The change in LOS policy (from LOS C to LOS D) will result in uniform intersection configuration at intersections along Highland Springs Avenue. Similarly, as discussed earlier, the City of Beaumont has a target standard of LOS D. Approval of the LOS D standard would make the City's LOS policy consistent with the County and other jurisdictions in the region.

The LOS criteria for unsignalized and signalized intersections are shown below.

Table 3.1: LOS Criteria for Unsignalized and Signalized Intersections

LOS	Unsignalized Intersection Average Delay per Vehicle (seconds)	Signalized Intersection Average Delay per Vehicle (seconds)
A	$\leq$ 10.0	$\leq$ 10.0
B	> 10.0 and $\leq$ 15.0	> 10.0 and $\leq$ 20.0
C	> 15.0 and $\leq$ 25.0	> 20.0 and $\leq$ 35.0
D	> 25.0 and $\leq$ 35.0	> 35.0 and $\leq$ 55.0
E	> 35.0 and $\leq$ 50.0	> 55.0 and $\leq$ 80.0
F	> 50.0	> 80.0

Source: Traffic Impact Analysis Banning General Plan Amendment Change in Level of Service Policy (February 2012).
LOS = level of service

Although Assembly Bill (AB) 1358 requires, as of January 1, 2011, cities and counties, to plan for multi-modal transportation networks upon any substantive revision to their circulation elements, the change in LOS as a result of the proposed project would affect vehicular traffic, only. Therefore, this change would not affect other multi-modal transportation network needs for users of streets, roads, and highways, including pedestrians, bicyclists, children, persons with disabilities, or seniors. In addition, any future improvements completed by the City would include the same or similar planned bicycle lanes, walkways, and sidewalks to accommodate pedestrians, bicyclists, children, persons with disabilities or seniors.

3.3.2 Removal of Highland Home Road/I-10 Interchange

Currently, the City's General Plan Circulation Element (Exhibit III-6) shows a full interchange with I-10 at Highland Home Road. The City is proposing to replace the interchange designation with an overcrossing at Highland Home Road. The Proposed Exhibit III-6 is shown in Figure 3.3. A list of improvements that would be included as part of the proposed project compared to the existing baseline conditions (Existing General Plan) are identified in Table 3.2.

Table 3.2: Comparison of Proposed Project to Existing General Plan Roadway Improvements

Intersection No.	Intersection	General Plan Roadway Improvements Required	Proposed Project Roadway Improvements
1	**Highland Springs Avenue/Wilson Street**	Add two northbound through lanes	Add second northbound through lane
		Add a second southbound left-turn lane	✓
			Add a designated southbound right-turn lane
		Add a third southbound through lane	N/A
		Add a second westbound left-turn lane	✓
2	**Highland Springs Avenue/Ramsey Street**	Add a second northbound left-turn lane	✓
		Add a third northbound through lane	✓
		Add a second southbound left-turn lane	✓
		Add a third southbound through lane	✓
		Add a third westbound through lane	N/A
			Add a second westbound left-turn lane
3	**Highland Springs Avenue/ I-10 Westbound Ramps**	Convert the existing southbound right –turn lane to a free right-turn lane	N/A
		Add second westbound right-turn lane	N/A
4	**Highland Springs Avenue/ I-10 Eastbound Ramps**	Add second eastbound left-turn lane	N/A

Table 3.2: Comparison of Proposed Project to Existing General Plan Roadway Improvements

Intersection No.	Intersection	General Plan Roadway Improvements Required	Proposed Project Roadway Improvements
5	**Highland Springs Avenue/ Sun Lakes Boulevard**	Add a third northbound through lane	N/A
		Add a designated northbound right-turn lane	✓
		Add a second southbound left-turn lane	✓
		Add a third southbound through lane	N/A
		Add a second eastbound left-turn lane	N/A
		Add a designated eastbound right-turn lane	N/A
		Add a second westbound left-turn lane	✓
		Add a second westbound through lane	✓
6	**Highland Home Road/Wilson Street**	Install a traffic signal	✓
		Add a second northbound left-turn lane	N/A
		Add two northbound through lanes	Add second northbound through lane
		Add two southbound left-turn lanes	✓
		Add two southbound through lanes	Add a second southbound through lane
		Add a designated southbound right-turn lane	✓
		Add a second eastbound left-turn lane	N/A
		Add a designated eastbound right-turn lane	✓
		Add a second westbound left-turn lane	N/A
		Add a designated westbound right-turn lane	✓
7	**Highland Home Road/Ramsey Street**	Install a traffic signal	✓
		Add two northbound left-turn lanes	Add northbound left-turn lane
		Add two northbound through lanes	Add a second northbound through lane
		Add a designated northbound right-turn lane	N/A
		Add a second southbound left-turn lane	✓
		Add two southbound through lanes	Add a second southbound through lane
		Add a designated southbound right-turn lane	✓
		Add a third eastbound through lane	N/A
		Add a second westbound left-turn lane	N/A
		Add a third westbound through lane	N/A

Table 3.2: Comparison of Proposed Project to Existing General Plan Roadway Improvements

Intersection No.	Intersection	General Plan Roadway Improvements Required	Proposed Project Roadway Improvements
8	**Highland Home Road/Westward Avenue**	Install a traffic signal	✓
		Add a northbound left-turn lane	✓
		Add a southbound left-turn lane	✓
			Add a second eastbound left-turn lane
		Add two eastbound through lanes	Add a second eastbound through lane
		Add two westbound through lanes	Add a second westbound through lane
9	**Sunset Avenue/Wilson Street**	Install a traffic signal	✓
		Add two northbound left-turn lanes	✓
		Add a second northbound through lane	✓
		Add a southbound left-turn lane	✓
		Add a second southbound through lane	✓
		Add a designated southbound right-turn lane	✓
		Add two eastbound left-turn lanes	Add an eastbound left-turn lane
		Add a second eastbound through lane	✓
		Add a designated eastbound right-turn lane	✓
		Add a westbound left-turn lane	✓
		Add two westbound through lanes	Add a second westbound through lane
		Add a designated westbound right-turn lane	✓
10	**Sunset Avenue/Ramsey Street**	Add a designated northbound right-turn lane	✓
		Add a designated southbound right-turn lane	✓
		Add a second eastbound left-turn lane	✓
		Add a third eastbound through lane	
		Add a designated eastbound right-turn lane	✓
		Add a second westbound left-turn lane	N/A
		Add a third westbound through lane	N/A
		Add a designated westbound right-turn lane	✓
11	**Sunset Avenue/I-10 Westbound Ramps**	Install a traffic signal	✓
		Add a free southbound right-turn lane	✓
12	**Sunset Avenue/I-10 Eastbound Ramps**	Install a traffic signal	✓
		Add a designated northbound right-turn lane	N/A
		Add a southbound left-turn lane	✓
		Add two eastbound left-turn lanes	✓

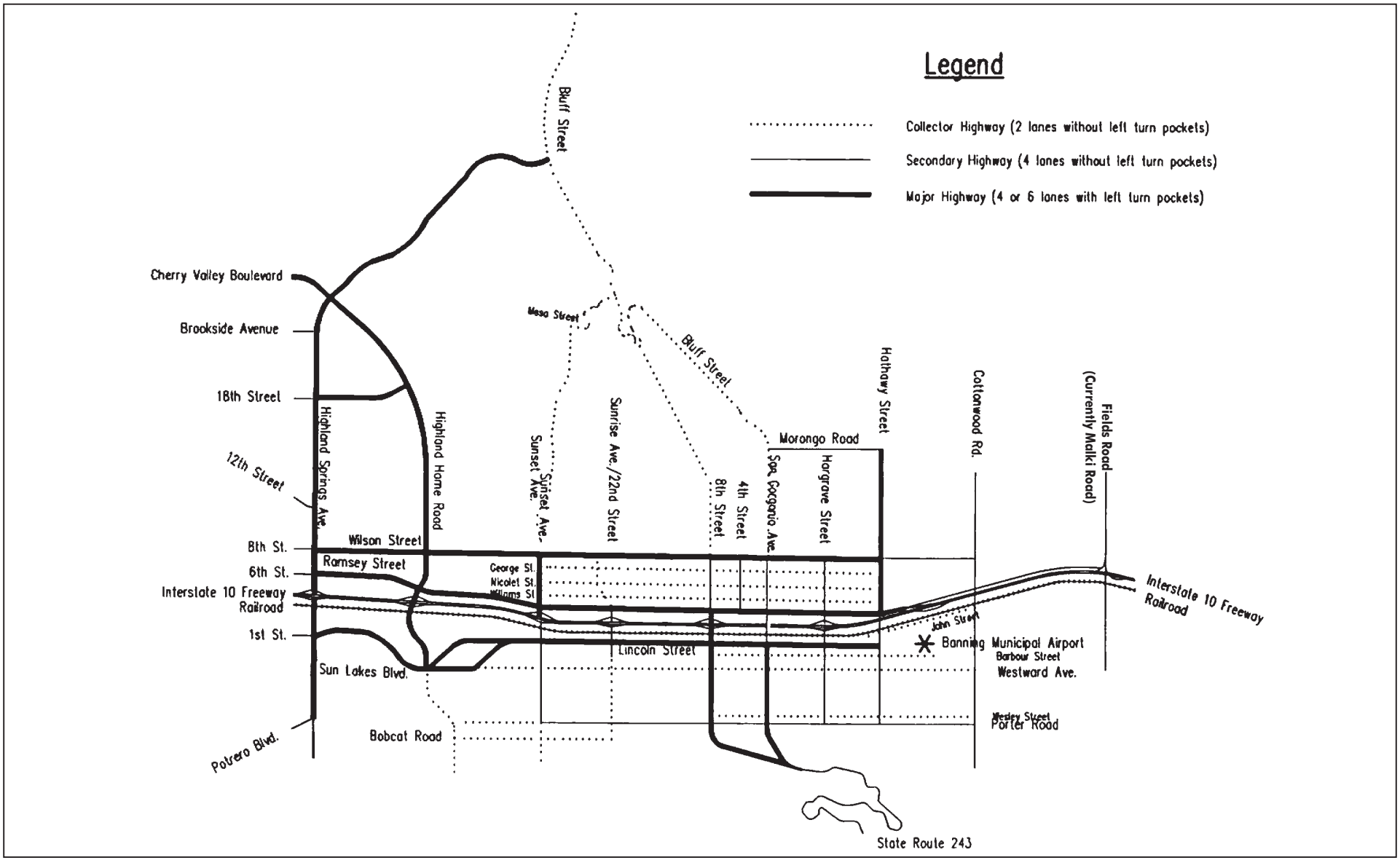
Table 3.2: Comparison of Proposed Project to Existing General Plan Roadway Improvements

Intersection No.	Intersection	General Plan Roadway Improvements Required	Proposed Project Roadway Improvements
13	**Sunset Avenue/Lincoln Street**	Install a traffic signal	✓
		Add a northbound left-turn lane	✓
		Add a second northbound through lane	✓
		Add a southbound left-turn lane	✓
		Add a second southbound through lane	✓
		Add a designated southbound right-turn lane	N/A
		Add two eastbound left-turn lanes	Add an eastbound left turn lane
		Add a second eastbound through lane	✓
		Add a westbound left-turn lane	✓
		Add a second westbound through lane	✓
		Add a designated westbound right-turn lane	✓
14	**8th Street/Wilson Street**	Install a traffic signal	✓
		Add a northbound left-turn lane	N/A
		Add a southbound left-turn lane	N/A
		Add a shared eastbound through/right-turn lane (i.e., conversion of the designated eastbound right-turn lane and widening of the departure leg to accept the eastbound through lane)	✓
		Add a second westbound through lane	✓
15	**8th Street/Lincoln Street**	Install a traffic signal	✓
		Add a northbound left-turn lane	✓
		Add a second northbound through lane	N/A
		Add a designated northbound right-turn lane	✓
		Add two southbound left-turn lanes	✓
		Add a second southbound through lane	✓
		Add two eastbound left-turn lanes	✓
		Add a second eastbound through lane	✓
		Add a designated eastbound right-turn lane	N/A
		Add a westbound left-turn lane	✓
		Add a second westbound through lane	✓

Table 3.2: Comparison of Proposed Project to Existing General Plan Roadway Improvements

Intersection No.	Intersection	General Plan Roadway Improvements Required	Proposed Project Roadway Improvements
16	**Hargrave Street/Lincoln Street**	Install a traffic signal	✓
		Add a northbound left-turn lane	✓
		Add a second northbound through lane	Add a northbound right-turn lane
		Add two southbound left-turn lanes	✓
		Add a free southbound right-turn lane	✓
		Add an eastbound left-turn lane	✓
		Add a second eastbound through lane	N/A
		Add a designated eastbound right-turn lane	✓
		Add a westbound left-turn lane	✓
		Add a second westbound through lane	✓
		Add a free westbound right-turn lane	✓

N/A = Not Applicable



LSA

FIGURE 3.3

City of Banning Circulation Element
General Plan Ammendment

Existing General Plan Street System

SOURCE: Kunzman Associates

I:\COB1101\G\GP Street System.cdr (9/7/12)

The proposed project improvements specifically related to the change in LOS policy would not be consistent with Policy 6 in the City's General Plan Circulation Element:

> **Policy 6** The City shall maintain peak hour Level of Service C or better on all local intersections, except those on Ramsey Street and at I-10 interchanges, where Level of Service D or better shall be maintained.

However, once revisions to policies are approved and the City's General Plan is amended, the proposed project would be consistent with Policy 6. As part of the proposed project, the City's General Plan would be amended to include a revision to Policy 6 so that LOS D would be allowed as the acceptable peak-hour LOS.

The proposed project improvements specifically related to the replacement of the I-10/Highland Home Road Interchange with an overcrossing would not be consistent with Program 4.C and Policy 5 of the City's General Plan Circulation Element:

> **Program 4.C** Aggressively pursue the design and development of interchanges at Highland Home Road and Cottonwood Road (North - South), including all sources of funding, and the coordination of I-10 widening with their installation.
>
> **Policy 5** Consider amendments to the Highland Home/Highland Springs/18th Street/Brookside street configurations based on public safety, design feasibility, and area needs.

However, once revisions to policies are approved and the City's General Plan is amended, the proposed project would be consistent with Program 4.C and Policy 5. As part of the proposed project, the City's General Plan would be amended to replace the I-10/Highland Home Road interchange with an overcrossing. However, based on the Feasibility Study for Highland Home Road/I-10 New Interchange (February 2008), construction of this interchange is not feasible. Therefore, the City has actively pursued the design and development at this location, but has determined that the future interchange design and funding are not feasible. Consequently, its planning efforts can be considered consistent with the intent of Program 4.C and Policy 5.

3.4 DISCRETIONARY ACTIONS

In order to complete the project, the City as Lead Agency would need to take the following actions:

- Certification of the FEIR
- Adoption of the GPA
- Update Exhibit III-6 in the Circulation Element of the General Plan
- Update the text in the Circulation Element of the General Plan
- Modify Program 4.C and Policy 5 in the General Plan to indicate the replacement of the Highland Home Road Interchange with an overcrossing or an alternative to be adopted by the City.

3.5 PROJECT OBJECTIVES

Pursuant to Section 15124 of the California Environmental Quality Act (CEQA) Guidelines, the project description should contain a statement of the objectives of the proposed project and the underlying purpose of the project. The project objectives are as follows:

- Update the City's General Plan Circulation Element to be consistent with adjacent jurisdictions' LOS D standards to more efficiently manage the operation of arterials, particularly where roadways are under multiple local jurisdictions.
- Provide consistency between the City's General Plan Circulation Element and the County's General Plan – Circulation Element relative to I-10/Highland Home Road.

4.0 ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

Chapter 4.0 includes an analysis of the project's environmental impacts. It is organized into topical sections, including Air Quality, Cultural Resources, Greenhouse Gas, Land Use and Planning, Noise, and Transportation/Circulation, as these are impacts that were identified to be significant in the Initial Study for the project.

The "existing environmental setting" discussions in Chapter 4.0 describe the environmental conditions of the project site and the vicinity of the site as the conditions pertain to the environmental issues being analyzed (Section 15125 of the California Environmental Quality Act [CEQA] Guidelines).

The "significance criteria" discussions in Chapter 4.0 list the threshold of significance that the City of Banning (City), as the Lead Agency, uses in determination of the significance of environmental effects. The City has developed and adopted these thresholds, which are specific to the City's environmental concerns (Section 15064.7 of the CEQA Guidelines).

The project impact discussions identify and focus on the potentially significant environmental effects of the proposed project. The direct and indirect significant effects of the project on the environment are identified and described, given due consideration to both the short-term and long-term effects as necessary (Section 15126.2[a] of the CEQA Guidelines). Impact significance criteria are identified to provide a standard or threshold for gauging the significance of impacts. Impacts of the proposed project are evaluated against the existing setting.

Cumulative impacts are based on the buildout of the project and the surrounding area, including all other known projects in the surrounding area. In this case, the proposed project is essentially a cumulative-level analysis because the project is a General Plan Amendment (GPA) that involves the entire City of Banning and is based on the General Plan buildout of the City.

The discussions of mitigation measures identify and describe feasible measures that could minimize or lessen significant adverse impacts for each significant environmental effect identified in the Environmental Impact Report (EIR) (Section 15126[a] of the CEQA Guidelines). The level of significance after mitigation is reported in each section. Unavoidable adverse effects are identified where mitigation is not expected to reduce the effects to less than significant levels.

4.1 AIR QUALITY

Introduction

This section provides a discussion of existing air quality and evaluates potential air quality impacts associated with the proposed project. This section summarizes information provided in the *Air Quality Analysis* (LSA Associates, Inc. [LSA], September 2012). The *Air Quality Analysis* is included in Appendix C of this Environmental Impact Report (EIR).

4.1.1 Existing Environmental Setting

Regional Air Quality. The proposed project is located in the nondesert portion of Riverside County (County), California, which is part of the South Coast Air Basin (Basin) and is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD).

A number of air quality modeling tools are available to assess the air quality impacts of projects. In addition, certain air districts, such as the SCAQMD, have created guidelines and requirements to conduct air quality analyses. The SCAQMD's current guidelines, included in its California Environmental Quality Act (CEQA) Air Quality Handbook (April 1993) and associated updates, were adhered to in the assessment of air quality impacts for the proposed project.

Both the State of California (State) and the federal government have established health-based ambient air quality standards (AAQS) for seven air pollutants. As shown in Table 4.1-A, these pollutants include ozone (O_3), carbon dioxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), coarse particulate matter with a diameter of 10 microns or less (PM_{10}), fine particulate matter less than 2.5 microns in diameter ($PM_{2.5}$), and lead. In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

In addition to identifying these primary and secondary AAQS, the State has established a set of episode criteria for O_3, CO, NO_2, SO_2, and PM_{10}. These criteria refer to episode levels representing periods of short-term exposure to air pollutants that actually threaten public health. Table 4.1-B lists the health effects of the criteria pollutants and their potential sources. Because the State and federal concentration standards were set at a level that protects public health with an adequate margin of safety (Environmental Protection Agency [EPA]), these health effects will not occur unless the standards are exceeded by a large margin or for a prolonged period of time. State AAQS are more stringent than federal AAQS. Among the pollutants, O_3 and particulate matter ($PM_{2.5}$ and PM_{10}) are considered regional pollutants, while the others have more localized effects.

Climate/Meteorology. Air quality in the planning area is not only affected by various emission sources (mobile, industry, etc.), but also by atmospheric conditions such as wind speed, wind direction, temperature, and rainfall, etc. The combination of topography, low mixing height, abundant sunshine, and emissions from the second largest urban area in the United States gives the Basin the worst air pollution problem in the nation.

Table 4.1-A: Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]		Federal Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone (O_3)	1-Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	--	Same as Primary Standard	Ultraviolet Photometry
	8-Hour	0.070 ppm (137 µg/m^3)		0.075 ppm (147 µg/m^3)		
Respirable Particulate Matter (PM_{10})	24-Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		--		
Fine Particulate Matter ($PM_{2.5}$)	24-Hour	No Separate State Standard		35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	15.0 µg/m^3		
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m^3)	None	Non-Dispersive Infrared Photometry (NDIR)
	1-Hour	20 ppm (23 mg/m^3)		35 ppm(40 mg/m^3)		
	8-Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	—
Nitrogen Dioxide (NO_2)[8]	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	Gas Phase Chemiluminescence	53 ppb (100 µg/m^3)	Same as Primary Standard	Gas Phase Chemiluminescence
	1-Hour	0.18 ppm (339 µg/m^3)		100 ppb (188 µg/m^3)	None	
Sulfur Dioxide (SO_2)[9]	Annual Arithmetic Mean	—	Ultraviolet Fluorescence	0.030 ppm (for certain areas)[9]		Ultraviolet Fluourescence; Spectrophotometry (Pararosaniline Method)
	24-Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas)[9]	—	
	3-Hour	—		—	0.5 ppm (1300 µg/m^3)	
	1-Hour	0.25 ppm (655 µg/m^3)		75 ppb (196 µg/m^3)	—	
Lead[10,11]	30-Day Average	1.5 µg/m^3	Atomic Absorption	—	—	High-Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m^3	Same as Primary Standard	
	Rolling 3-Month Average[11]	—		0.15 µg/m^3		
Visibility-Reducing Particles[12]	8-Hour	See Footnote 12	Beta Attenuation and Transmittance through Filter Tape	**No Federal Standards**		
Sulfates	24-Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[10]	24-Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

Source: California Air Resources Board, February 7, 2012.

The footnotes for this table are provided on the following page.

Footnotes:

[1] California standards for ozone; carbon monoxide (except Lake Tahoe); sulfur dioxide (1- and 24-hour); nitrogen dioxide; suspended particulate matter - PM_{10}, $PM_{2.5}$, and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the CCR.

[2] National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once per year. The ozone standard is attained when the fourth-highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than 1. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard. Contact the EPA for further clarification and current federal policies.

[3] Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[4] Any equivalent procedure which can be shown to the satisfaction of ARB to give equivalent results at or near the level of the air quality standard may be used.

[5] National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

[6] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[7] Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.

[8] To attain the 1-hour standard, the 3-year average of the annual 98^{th} percentile of the 1-hour daily maximum 1-hour average at each monitor within an area must not exceed 100 parts per billion (ppb). Note that the national standards are in units of ppb. California standards are in units of parts per million (ppm). To directly compare the national standards to the California standards, the units can be converted from ppb to ppm. In this case, the national standards of 53 ppb and 100 ppb are identical to 0.053 ppm and 0.100 ppm, respectively.

[9] On June 2, 2010, the new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

Note that the 1-hour national standard is in units of ppb. California standards are in units of ppm. To directly compare the 1-hour national standard to the California standard, the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

[10] The ARB has identified lead and vinyl chloride as "toxic air contaminants" with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[11] The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ as a quarterly average) remains in effect until 1 year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standards are approved.

[12] In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basins, respectively.

°C = degrees Celsius
ARB = California Air Resources Board
CCR = California Code of Regulations
EPA = United States Environmental Protection Agency
$\mu g/m^3$ = micrograms per cubic meter
mg/m^3 = milligrams per cubic meter
ppm = parts per million
ppb = parts per billion

Table 4.1-B: Summary of Health Effects of the Major Criteria Air Pollutants

Pollutant	Health Effects	Examples of Sources
Particulate matter (PM_{10}: less than or equal to 10 microns)	• Increased respiratory disease • Lung damage • Premature death	• Cars and trucks, especially diesels • Fireplaces, wood stoves • Windblown dust from roadways, agriculture, and construction
Ozone (O_3)	• Breathing difficulties • Lung damage	• Formed by chemical reactions of air pollutants in the presence of sunlight; common sources are motor vehicles, industries, and consumer products
Carbon monoxide (CO)	• Chest pain in heart patients • Headaches, nausea • Reduced mental alertness • Death at very high levels	• Any source that burns fuel such as cars, trucks, construction and farming equipment, and residential heaters and stoves
Nitrogen dioxide (NO_2)	• Lung damage	• See CO sources
Toxic air contaminants	• Cancer • Chronic eye, lung, or skin irritation • Neurological and reproductive disorders	• Cars and trucks, especially diesels • Industrial sources such as chrome platers • Neighborhood businesses such as dry cleaners and service stations • Building materials and products

Source: ARB 2005.
ARB = California Air Resources Board

The annual average temperature varies little throughout the Basin, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The climatological station closest to the site is the Beaumont station.[1] The monthly average maximum temperature recorded at this station in the past ranged from 60.3°F in January to 95.5°F in August, with an annual average maximum of 76.6°F. The monthly average minimum temperature recorded at this station ranged from 38.4°F in January to 58.8°F in August, with an annual average minimum of 46.9°F. Either January or December is typically the coldest month, and August is typically the warmest month in this area of the Basin.

The majority of annual rainfall in the Basin occurs between November and April. Summer rainfall is minimal and is generally limited to scattered thundershowers in coastal regions and slightly heavier showers in the eastern portion of the Basin and along the coastal side of the mountains. The Beaumont station is representative of the area precipitation. Average monthly rainfall measured between 1939 and 2011 varied from 3.56 inches in November to 0.65 inch or less between May and October, with an annual total of 17.89 inches. Patterns in monthly and yearly rainfall totals are unpredictable due to fluctuations in the weather.

The Basin experiences a persistent temperature inversion (increasing temperature with increasing altitude) as a result of the Pacific high. This inversion limits the vertical dispersion of air contaminants, holding them relatively near the ground. As the sun warms the ground and the lower air layer, the temperature of the lower air layer approaches the temperature of the base of the inversion

[1] Western Regional Climate Center, www.wrcc.dri.edu, 2012.

(upper) layer until the inversion layer finally breaks, allowing vertical mixing with the lower layer. This phenomenon is observed in mid-afternoon to late afternoon on hot summer days, when the smog appears to clear up suddenly. Winter inversions frequently break by midmorning.

Winds in the vicinity of the project area blow predominantly from the south-southwest, with relatively low velocities. Wind speeds in the project area average about 4 miles per hour (mph). Summer wind speeds average slightly higher than winter wind speeds. Low average wind speeds, together with a persistent temperature inversion limit the vertical dispersion of air pollutants throughout the Basin. Strong, dry, north or northeasterly winds, known as Santa Ana winds, occur during the fall and winter months, dispersing air contaminants. The Santa Ana conditions tend to last for several days at a time.

The combination of stagnant wind conditions and low inversion produces the greatest pollutant concentrations. On days of no inversion or high wind speeds, ambient air pollutant concentrations are the lowest. During periods of low inversion and low wind speeds, air pollutants generated in urbanized areas are transported predominantly on shore into Riverside and San Bernardino Counties. In the winter, the greatest pollution problems are CO and oxides of nitrogen (NO_X) because of extremely low inversions and air stagnation during the night and early morning hours. In the summer, the longer daylight hours and the brighter sunshine combine to cause a reaction between hydrocarbons and NO_X to form photochemical smog.

Air Pollution Constituents and Attainment Status. The California Air Resources Board (ARB) coordinates and oversees both State and federal air pollution control programs in California. The ARB oversees activities of local air quality management agencies and maintains air quality monitoring stations throughout the State in conjunction with the EPA and local air districts. The ARB has divided the State into 15 air basins based on meteorological and topographical factors of air pollution. Data collected at these stations are used by the ARB and EPA to classify air basins as attainment, nonattainment, nonattainment-transitional, or unclassified, based on air quality data for the most recent three calendar years compared with the AAQS. Nonattainment areas are imposed with additional restrictions as required by the EPA. The air quality data are also used to monitor progress in attaining air quality standards. Table 4.1-C lists the attainment status for the criteria pollutants in the Basin. Criteria pollutants are discussed in more detail below.

Ozone. O_3 (smog) is formed by photochemical reactions between oxides of nitrogen and reactive organic gases (ROGs) rather than being directly emitted. O_3 is a pungent, colorless gas typical of Southern California smog. Elevated O_3 concentrations result in reduced lung function, particularly during vigorous physical activity. This health problem is particularly acute in sensitive receptors such as the sick, the elderly, and young children. O_3 levels peak during summer and early fall. The entire Basin is designated as a nonattainment area for the State 1-hour and 8-hour O_3 standards. The EPA has officially designated the status for most of the Basin regarding the 8-hour O_3 standard as “Extreme,” which means the Basin has until 2024 to attain the federal 8-hour O_3 standard.

Table 4.1-C: Attainment Status of Criteria Pollutants in the South Coast Air Basin

Pollutant	State	Federal
O_3 1-hour	Nonattainment	N/A
O_3 8-hour	Nonattainment	Extreme Nonattainment
PM_{10}	Nonattainment	Serious Nonattainment
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Attainment/Maintenance
NO_2	Nonattainment	Attainment/Maintenance
SO_2	Attainment	Attainment
Lead	Attainment (except for Los Angeles County)	Attainment (except for Los Angeles County)
All others	Attainment/Unclassified	Attainment/Unclassified

Source: ARB 2011 (http://www.arb.ca.gov/desig/desig.htm).
ARB = California Air Resources Board
CO = carbon monoxide
N/A = not applicable
NO_2 = nitrogen dioxide
O_3 = ozone
PM_{10} = particulate matter less than 10 microns in diameter
$PM_{2.5}$ = particulate matter less than 2.5 microns in diameter
SO_2 = sulfur dioxide

Carbon Monoxide. CO is formed by the incomplete combustion of fossil fuels, almost entirely from automobiles. It is a colorless, odorless gas that can cause dizziness, fatigue, and impairments to central nervous system functions. The entire Basin is in attainment for the State standards for CO. The Basin is designated as an "Attainment/Maintenance" area under the federal CO standards.

Nitrogen Oxides. NO_2, a reddish brown gas, and nitric oxide (NO), a colorless, odorless gas, are formed from fuel combustion under high temperature or pressure. These compounds are referred to as nitrogen oxides, or NO_X. NO_X is a primary component of the photochemical smog reaction. It also contributes to other pollution problems, including a high concentration of fine particulate matter, poor visibility, and acid deposition (i.e., acid rain). NO_2 decreases lung function and may reduce resistance to infection. The entire Basin is designated as nonattainment for the State NO_2 standard and as an "Attainment/Maintenance" area under the federal NO_2 standard.

Sulfur Dioxide. SO_2 is a colorless irritating gas formed primarily from incomplete combustion of fuels containing sulfur. Industrial facilities also contribute to gaseous SO_2 levels. SO_2 irritates the respiratory tract, can injure lung tissue when combined with fine particulate matter, and reduces visibility and the level of sunlight. The entire Basin is in attainment with both federal and State SO_2 standards.

Lead. Lead is found in old paints and coatings, plumbing, and a variety of other materials. Once in the blood stream, lead can cause damage to the brain, nervous system, and other body systems. Children are highly susceptible to the effects of lead. The Los Angeles County portion of the Basin was re-designated as nonattainment for the State and federal standards for lead in 2010.

Particulate Matter. Particulate matter (PM) is the term used for a mixture of solid particles and liquid droplets found in the air. Coarse particles (PM_{10}) derive from a variety of sources, including windblown dust and grinding operations. Fuel combustion and resultant exhaust from power plants and diesel buses and trucks are primarily responsible for fine particle ($PM_{2.5}$) levels. Fine particles can also be formed in the atmosphere through chemical reactions. PM_{10} can accumulate in the respiratory system and aggravate health problems such as asthma. The EPA's scientific review concluded that $PM_{2.5}$, which penetrate deeply into the lungs, are more likely than coarse particles to contribute to the health effects listed in a number of recently published community epidemiological studies at concentrations that extend well below those allowed by the current PM_{10} standards. These health effects include increased hospital admissions, emergency room visits, and premature death (primarily in the elderly and individuals with cardiopulmonary disease); increased respiratory symptoms and disease (children and individuals with cardiopulmonary disease such as asthma); decreased lung functions (particularly in children and individuals with asthma); and alterations in lung tissue and structure and in respiratory tract defense mechanisms. Most of the Basin is designated nonattainment for the federal and State PM_{10} and $PM_{2.5}$ standards.

Reactive Organic Compounds. Reactive organic compounds (ROCs; also known as ROGs and volatile organic compounds [VOCs]) are formed from the combustion of fuels and the evaporation of organic solvents. ROCs are not defined as criteria pollutants, but are a prime component of the photochemical smog reaction. Consequently, ROCs accumulate in the atmosphere more quickly during the winter when sunlight is limited and photochemical reactions are slower. There are no attainment designations for ROCs.

Sulfates. Sulfates occur in combination with metal and/or hydrogen ions. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. This sulfur is oxidized to SO_2 during the combustion process and subsequently converted to sulfate compounds in the atmosphere. The conversion of SO_2 to sulfates takes place comparatively rapidly and completely in urban areas of California due to regional meteorological features. The entire Basin is in attainment for the State standard for sulfates.

Hydrogen Sulfide. Hydrogen sulfide (H_2S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas and can be emitted as the result of geothermal energy exploitation. In 1984, an ARB committee concluded that the ambient standard for H_2S is adequate to protect public health and to significantly reduce odor annoyance. The entire Basin is unclassified for the State standard for hydrogen sulfide.

Visibility-Reducing Particles. Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size, and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt. The statewide standard is intended to limit the frequency and severity of visibility impairment due to regional haze. The entire Basin is unclassified for the State standard for visibility-reducing particles.

Local Air Quality. SCAQMD, together with the ARB, maintains ambient air quality monitoring stations in the Basin. The air quality monitoring station closest to the site is the Banning station. This station monitors O_3, PM_{10}, $PM_{2.5}$, and NO_2. This monitoring station characterizes the air quality representative of the ambient air quality in the project area.[1] The next closest monitoring station is the Palm Springs station, which monitors CO. The closest monitoring station that monitors SO_2 is the Riverside-Rubidoux station. Ambient air quality data in Table 4.1-D show that CO, NO_2, and SO_2 levels are consistently below the relevant State and federal standards in the project vicinity. Ozone, PM_{10}, and $PM_{2.5}$ levels all exceed State and federal standards over the past three years.

4.1.2 Regulatory Setting

Federal Regulations/Standards. Pursuant to the federal Clean Air Act (CAA) of 1970, the EPA established national ambient air quality standards (NAAQS). The NAAQS were established for six major pollutants, termed "criteria" pollutants. Criteria pollutants are defined as those pollutants for which the federal and State governments have established AAQS, or criteria, for outdoor concentrations in order to protect public health. The NAAQS are shown in Table 4.1-F.

Data collected at permanent monitoring stations are used by the EPA to classify regions as "attainment" or "nonattainment," depending on whether the regions met the requirements stated in the primary NAAQS. Nonattainment areas are imposed with additional restrictions as required by the EPA.

The EPA has designated the Southern California Association of Governments (SCAG) as the Metropolitan Planning Organization (MPO) responsible for ensuring compliance with the requirements of the CAA for the Basin.

The EPA established new national air quality standards for ground-level O_3 and fine particulate matter in 1997. On May 14, 1999, the Court of Appeals for the District of Columbia Circuit issued a decision ruling that the CAA, as applied in setting the new public health standards for O_3 and particulate matter, was unconstitutional as an improper delegation of legislative authority to the EPA. On February 27, 2001, the U.S. Supreme Court upheld the way the government sets air quality standards under the CAA. The court unanimously rejected industry arguments that the EPA must consider financial cost as well as health benefits in writing standards. The justices also rejected

[1] Air quality data, 2008–2010; EPA and ARB websites.

Table 4.1-D: Ambient Air Quality Monitored at Banning, Palm Springs, and Riverside-Rubidoux Stations

Pollutant	Standard	2008	2009	2010
Carbon Monoxide (CO) – from Palm Springs Station				
Maximum 1-hr concentration (ppm)		1.3	2.3	1.6
Number of days exceeded:	State: > 20 ppm	0	0	0
	Federal: > 35 ppm	0	0	0
Maximum 8-hr concentration (ppm)		0.5	0.7	0.6
Number of days exceeded:	State: ≥ 9.0 ppm	0	0	0
	Federal: ≥ 9 ppm	0	0	0
Ozone (O_3) – from Banning Station				
Maximum 1-hr concentration (ppm)		0.149	0.133	0.124
Number of days exceeded:	State: > 0.09 ppm	57	55	31
Maximum 8-hr concentration (ppm)		0.120	0.104	0.107
Number of days exceeded:	State: > 0.07 ppm	95	91	77
	Federal: > 0.075 ppm	74	70	60
Coarse Particulates (PM_{10}) – from Banning Station				
Maximum 24-hr concentration (µg/m^3)		51	99	55
Number of days exceeded:	State: > 50 µg/m3	0	1	1
	Federal: > 150 µg/m3	0	0	0
Annual arithmetic average concentration (µg/m^3)		26.1	25.9	21.8
Exceeded for the year:	State: > 20 µg/m^3	Yes	Yes	Yes
Fine Particulates ($PM_{2.5}$) – from Banning Station				
Maximum 24-hr concentration (µg/m^3)		47.4	49.7	50.6
Number of days exceeded:	Federal: > 35 µg/m^3	4	4	3
Annual arithmetic average concentration (µg/m^3)		15.4	13.6	13.6
Exceeded for the year:	State: > 12 µg/m3	Yes	Yes	Yes
	Federal: > 15 µg/m3	Yes	No	No
Nitrogen Dioxide (NO_2) – from Banning Station				
Maximum 1-hr concentration (ppm)		0.079	0.056	0.066
Number of days exceeded:	State: > 0.18 ppm	0	0	0
Annual arithmetic average concentration (ppm)		0.013	0.011	0.012
Exceeded for the year:	State: > 0.030 ppm	No	No	No
	Federal: > 0.053 ppm	No	No	No
Sulfur Dioxide (SO_2) – from Riverside-Rubidoux Station				
Maximum 24-hr concentration (ppm)		0.003	0.003	0.005
Number of days exceeded:	State: > 0.04 ppm	0	0	0
	Federal: > 0.14 ppm	0	0	0
Annual arithmetic average concentration (ppm)		0.000	0.001	0.001
Exceeded for the year:	Federal: > 0.030 ppm	No	No	No

Sources: EPA and ARB websites: www.epa.gov/air/data/index.html and www.arb.ca.gov/adam/welcome.html.

µg/m^3 = micrograms per cubic meter
ARB = California Air Resources Board
EPA = United States Environmental Protection Agency
hr = hour(s)
ppm = parts per million

arguments that the EPA took too much lawmaking power from Congress when it set tougher standards for O_3 and soot in 1997. Nevertheless, the court threw out the EPA's policy for implementing new O_3 rules, saying that the agency ignored a section of the law that restricts its authority to enforce such rules.

In April 2003, the EPA was cleared by the White House Office of Management and Budget (OMB) to implement the 8-hour ground-level O_3 standard. The EPA issued the proposed rule implementing the 8-hour O_3 standard in April 2003. The EPA completed final 8-hour nonattainment status on April 15, 2004. The EPA revoked the 1-hour O_3 standard on June 15, 2005, and lowered the 8-hour O_3 standard from 0.08 parts per million (ppm) to 0.075 ppm on April 1, 2008.

The EPA issued the final $PM_{2.5}$ implementation rule in fall 2004. The EPA lowered the 24-hour $PM_{2.5}$ standard from 65 to 35 micrograms per cubic meter ($\mu g/m^3$) and revoked the annual PM_{10} standard on December 17, 2006. The EPA issued final designations for the 2006 24-hour $PM_{2.5}$ standard on December 12, 2008.

State Regulations/Standards. In 1967, the California Legislature passed the Mulford-Carrell Act, which combined two Department of Health bureaus, the Bureau of Air Sanitation and the Motor Vehicle Pollution Control Board, to establish ARB. Since its formation, ARB has worked with the public, the business sector, and local governments to find solutions to California's air pollution problems.

Local Regulations/Standards.

Regional Air Quality Planning Framework. The 1976 Lewis Air Quality Management Act established the SCAQMD and other air districts throughout the State. The federal CAA Amendments of 1977 required that each state adopt an implementation plan outlining pollution control measures to attain the federal standards in nonattainment areas of the state.

The ARB is responsible for incorporating air quality management plans for local air basins into a State Implementation Plan (SIP) for EPA approval. Significant authority for air quality control within them has been given to local air districts that regulate stationary source emissions and develop local nonattainment plans.

Regional Air Quality Management Plan. The SCAQMD and the SCAG are responsible for formulating and implementing the Air Quality Management Plan (AQMP) for the Basin. Every 3 years, the SCAQMD prepares a new AQMP, updating the previous plan and having a 20-year horizon. The SCAQMD adopted the 2003 AQMP in August 2003 and forwarded it to ARB for review and approval. The ARB approved a modified version of the 2003 AQMP and forwarded it to the EPA in October 2003 for review and approval.

The 2003 AQMP updates the attainment demonstration for the federal standards for O_3 and PM_{10}, replaces the 1997 attainment demonstration for the federal CO standard and provides a basis for a

maintenance plan for CO for the future, and updates the maintenance plan for the federal NO_2 standard that the Basin has met since 1992.

The 2003 AQMP proposes policies and measures to achieve federal and State standards for healthful air quality in the Basin and those portions of the Salton Sea Air Basin (formerly named the Southeast Desert Air Basin) that are under District jurisdiction (namely, Coachella Valley). The Coachella Valley PM_{10} Plan was revised in June 2002 and forwarded to the ARB and EPA for approval. The EPA approved the 2002 Coachella Valley SIP on April 18, 2003.

This revision to the AQMP also addresses several state and federal planning requirements and incorporates significant new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools. This AQMP is consistent with and builds upon the approaches taken in the 1997 AQMP and the 1999 Amendments to the O_3 SIP for the South Coast Air Basin for the attainment of the federal O_3 air quality standard. However, this revision points to the urgent need for additional emission reductions (beyond those incorporated in the 1997/99 Plan) to offset increased emission estimates from mobile sources and meet all federal criteria pollutant standards within the time frames allowed under the federal CAA.

The SCAQMD adopted the 2007 AQMP on June 1, 2007, which it describes as a regional and multiagency effort (the SCAQMD Governing Board, ARB, SCAG, and EPA). An inventory of existing emissions from industrial facilities is included in the baseline inventory in the 2007 AQMP. The 2007 AQMP also identifies emission reductions from existing sources and air pollution control measures that are necessary in order to comply with applicable State and federal ambient air quality standards. State and federal planning requirements will include developing control strategies, attainment demonstration, reasonable further progress, and maintenance plans. The 2007 AQMP also incorporates significant new scientific data, primarily in the form of updated emission inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools. The ARB has adopted the SCAQMD 2007 AQMP as part of the 2007 SIP and forwarded it to the EPA for review and approval.

On November 22, 2010, the EPA published its notice of proposed partial approval and partial disapproval of the 2007 AQMP $PM_{2.5}$ Plan primarily because the attainment demonstration relies heavily on emissions reductions from several State rules that have not been finalized or submitted to the EPA for approval.

The proposed revision to the $PM_{2.5}$ and ozone SIP addresses the critical issues of the proposed disapproval. It updates the implementation status of the AQMP control measures to meet the 2015 $PM_{2.5}$ attainment, retains the SCAQMD's proposal for contingency measures, and also references and relies on ARB's proposed contingency measures. In addition, the SIP revision will reinitiate its request that the EPA voluntarily accept reduction responsibility for 10 tons per day (TPD) NO_X emissions in 2014 but will propose that SCAQMD and ARB jointly provide a "fair-share" backstop emissions reduction proposal, if necessary. As of March 4, 2011, SCAQMD is proposing to submit a revision to the $PM_{2.5}$ and ozone SIP to: (1) update the implementation status of the SCAQMD control measures to meet the 2015 $PM_{2.5}$ attainment; (2) revisions to the control measure adoption schedule; and (3) modifications to the emissions reduction commitment to reflect changes made to the inventory resulting from ARB's December 2010 revisions to the

on-road truck and off-road equipment rules. The SIP revision retains the SCAQMD's proposal for contingency measures and also references and relies on ARB's proposed contingency measures.

City of Banning General Plan. Applicable goals and policies in the City of Banning (City) General Plan are identified below:

Air Quality Element

Goal To preserve and enhance local and regional air quality for the protection of the health and welfare of the community.

Policy 2 The City shall continue to coordinate and cooperate with local, regional and federal efforts to monitor, manage and reduce the levels of major pollutants affecting the City and region, with particular emphasis on PM_{10} and ozone emissions, as well as other emissions associated with diesel-fueled equipment and motor vehicles.

4.1.3 Methodology

A number of modeling tools are available to assess air quality impacts of projects. In addition, certain air districts, such as the SCAQMD, have created guidelines and requirements to conduct air quality analysis. SCAQMD's current guidelines, *CEQA Air Quality Handbook, April 1993*, and associated updates,[1] were utilized in the assessment of air quality impacts for the proposed project.

The Air Quality Analysis includes estimated emissions associated with the long-term change in traffic flow that would result from the proposed changes to the City's General Plan. The net increase in pollutant emissions determines the significance and impact on regional air quality as a result of the proposed project. The results also allow the local government to determine whether the proposed project will deter the region from achieving the goal of reducing pollutants in accordance with the AQMP in order to comply with federal and State AAQS.

4.1.4 Thresholds of Significance

The following thresholds of significance criteria are based on Appendix G of the CEQA Guidelines and were used to evaluate potentially significant impacts related to air quality that could occur as a result of project implementation. The project would result in significant impact related to air quality if it would:

- Conflict with or obstruct implementation of the applicable air quality plan?
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

[1] www.aqmd.gov/ceqa/hdbk.html.

- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?
- Expose sensitive receptors to substantial pollutant concentrations?
- Create objectionable odors affecting a substantial number of people?

The proposed project is a policy change in regard to the City's adopted LOS and the replacement of the future designated Interstate 10 (I-10)/Highland Home Road interchange with an overcrossing. The Initial Study (IS) prepared by the City (Appendix A) determined that this type of policy change does not have the potential to create objectionable odors because it does not involve construction activities. Therefore, no impacts related to objectionable odors would result from the proposed project, and this topic will not be discussed further in this EIR.

SCAQMD Criteria. In addition to the federal and State AAQS, there are daily emissions thresholds for construction and operation of a proposed project in the Basin. The Basin is administered by the SCAQMD, and guidelines and emissions thresholds established by the SCAQMD in its CEQA Air Quality Handbook (SCAQMD, April 1993) are used in this analysis. It should be noted that the emissions thresholds were established based on the attainment status of the air basin in regard to air quality standards for specific criteria pollutants. Because the concentration standards were set at a level that protects public health with an adequate margin of safety (EPA), these emissions thresholds are regarded as conservative and would overstate an individual project's contribution to health risks.

Thresholds for Construction Emissions. The following CEQA significance thresholds for construction emissions have been identified for the Basin by SCAQMD:

- 75 pounds per day (lbs/day) of ROC
- 100 lbs/day of NO_X
- 550 lbs/day of CO
- 150 lbs/day of PM_{10}
- 55 lbs/day of $PM_{2.5}$
- 150 lbs/day of SO_2

Projects in the Basin with construction-related emissions that exceed any of the emission thresholds are considered to be significant under the SCAQMD guidelines.

Thresholds for Operational Emissions. The daily operational emissions "significance" thresholds for the Basin identified by SCAQMD are as follows:

- 55 lbs/day of ROC
- 55 lbs/day of NO_X

- 550 lbs/day of CO
- 150 lbs/day of PM_{10}
- 55 lbs/day of $PM_{2.5}$
- 150 lbs/day of SO_2

Local Microscale Concentration Standards. The significance of localized project impacts under CEQA depends on whether ambient CO levels in the vicinity of the project are above or below State and federal CO standards. If ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a State or federal standard, project emissions are considered significant if they increase 1-hour CO concentrations by 1.0 ppm or more or 8-hour CO concentrations by 0.45 ppm or more. The following are applicable local emission concentration standards for CO:

- California State 1-hour CO standard of 20.0 ppm
- California State 8-hour CO standard of 9.0 ppm

4.1.5 Impacts and Mitigation

Less Than Significant Impacts.

Construction Impacts. The purpose of the proposed project is to change the acceptable roadway operating level of service (LOS) at local intersections from LOS C to LOS D and replace the planned future I-10/Highland Home Road interchange with an overcrossing. The proposed project does not include any specific construction activities within the City. Therefore, no impacts from emissions as a result of construction activities would occur, and no mitigation measures would be required.

Long-Term Regional Air Quality Impacts. The proposed project would not generate new vehicular traffic trips since it is not a development project and would not construct new homes or businesses. However, there is a possibility that the proposed project would affect the traffic flow within the City, resulting in increased vehicle miles traveled (VMT). Therefore, the potential impact of the proposed project on regional vehicle emissions was calculated using traffic data for the project region and emission rates from the EMFAC2007 emission model.

Traffic analyses evaluated the effect of replacing the planned I-10/Highland Home Road interchange with an overcrossing and the effect of changing the acceptable roadway operating LOS from C to D. The traffic data included in these traffic studies were used to calculate the regional vehicle miles traveled (VMT) under the existing General Plan conditions (LOS C with planned I-10/Highland Home Road interchange) and with the proposed project (LOS D with Highland Home Road overcrossing). The regional VMT data is listed in Table 4.1-E. The increase in a.m. peak hour VMT as shown in Table 4.1-E was calculated using peak hour turning movements at intersections within the vicinity of the future planned Highland Home Road interchange. The increase in the a.m. trip length is due to the change in the traffic flow that would

result from the changing the planned intersection into an overcrossing. Vehicles that would use Highland Home Avenue to access I-10 would be required to travel further to use Highland Springs Avenue or Sunset Avenue.

Table 4.1-E: Regional Vehicle Miles Traveled (VMT)

Scenario	AM	PM	Total
Existing General Plan	18,095	36,714	54,809
Proposed Project – at LOS D with Highland Home Road Overcrossing	19,345	35,235	54,581

Source: LSA Associates, Inc., September 2012.
LOS = level of service

This VMT data, along with the EMFAC2007 emission rates, were used to calculate CO, ROGs, NO_X, SO_2, PM_{10}, and $PM_{2.5}$ emissions. The results of the modeling are included in Appendix A of the Air Quality Assessment and summarized in Table 4.1-F. Although EMFAC2011 is now available, the model does not provide fleet wide emission rates that include autos, light trucks, and heavy duty trucks. In addition, the SCAQMD's website still lists EMFAC2007 as an approved model.[1] Therefore, EMFAC2007 was used for the analysis for the proposed project.

As shown in Table 4.1-F, the proposed General Plan Amendment would reduce pollutant emissions within the region due to the redistribution of traffic. Therefore, the proposed project would not contribute substantially to regional vehicle emissions, and impacts to air quality are considered less than significant.

Table 4.1-F: Long-Term Regional Emissions

Source	Pollutant Emissions (lbs/day)					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Existing General Plan	5.2	24.8	103.7	0.6	5.3	3.4
Proposed Project – at LOS D with Highland Home Road Overcrossing	5.2	24.7	103.2	0.6	5.3	3.4
Increase in Emissions – Overcrossing	**0.0**	**-0.1**	**-0.5**	**0.0**	**0.0**	**0.0**
SCAQMD Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Significant?	**No**	**No**	**No**	**No**	**No**	**No**

Source: LSA Associates, Inc., September 2012.
CO = carbon monoxide
lbs/day = pounds per day
LOS = level of service
NO_x = oxides of nitrogen
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
ROG = reactive organic gases
SCAQMD = South Coast Air Quality Management District
SO_x = sulfur oxides

Long-Term Microscale (Co Hot Spot) Analysis. Vehicular trips associated with the proposed project would contribute to congestion at intersections and along roadway segments in the City. Localized air quality impacts would occur when emissions from vehicular traffic increase in local

[1] http://www.aqmd.gov/ceqa/handbook/onroad/onroad.html

areas as a result of the proposed project. The primary mobile source pollutant of local concern is CO, which is a direct function of vehicle idling time and, thus, traffic flow conditions. CO transport is extremely limited; it disperses rapidly with distance from the source under normal meteorological conditions. However, under certain extreme meteorological conditions, CO concentrations proximate to a congested roadway or intersection may reach unhealthful levels affecting local sensitive receptors (residents, school children, the elderly, hospital patients, etc). Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service or with extremely high traffic volumes. In areas with high ambient background CO concentrations, modeling is recommended to determine a project's effect on local CO levels.

An assessment of amendment-related impacts on localized ambient air quality requires that future ambient air quality levels be projected. Existing CO concentrations in the immediate project vicinity are not available. Ambient CO levels monitored at the Palm Springs Station, the closest station with complete monitored CO data, showed a highest recorded 1-hour concentration of 2.3 ppm (State standard is 20 ppm) and a highest 8-hour concentration of 0.7 ppm (State standard is 9 ppm) during the past 3 years (see Table 4.1-D).

The highest CO concentrations would normally occur during peak traffic hours; hence, CO impacts calculated under peak traffic conditions represent a worst-case analysis. Because the ambient CO concentrations are much lower than the corresponding federal and State CO standards, the small increase or decrease in vehicles that are using the intersections within the project area, would result in a change of 5 percent or less. Therefore, CO concentrations would not substantially increase within the vicinity of an intersection due to the proposed project and it is not expected to result in CO levels that exceed the federal or State CO standards.

Table 4.1-G lists the CO concentrations at 14 representative intersections in the project vicinity for the replacement of the Highland Home Road interchange with an overcrossing. The policy change in LOS from C to D would not change the long-term a.m. or p.m. peak hour turning movements. This policy change would have no long-term effect on the CO concentrations. Therefore, the CO concentrations were modeled for the 14 intersections that were evaluated in LOS Criteria Change TIA. All CO concentrations at intersections in the project study area would be below the federal and State CO standards, and project-related effects range from -0.3 ppm to 0.6 ppm or less. Because no CO hot spots would occur, local air quality impacts related to CO are considered less than significant, and no mitigation measures would be required.

Air Quality Management Plan Consistency. An AQMP describes air pollution control strategies to be taken by a city, county, or region classified as a nonattainment area. The main purpose of an AQMP is to bring the area into compliance with federal and State air quality standards. CEQA requires that certain proposed projects be analyzed for consistency with the AQMP. For a project to be consistent with the AQMP adopted by the SCAQMD, the pollutants emitted from the project should not exceed the SCAQMD daily threshold or cause a significant impact on air quality, or the project must already have been included in the AQMP projection. However, if feasible mitigation measures are implemented and shown to reduce the impact level from significant to less than significant, a project may be deemed consistent with the AQMP. The proposed project would not generate any emissions that exceed the SCAQMD's thresholds.

Table 4.1-G: CO Concentrations under the Proposed Project – Replacement of I-10/Highland Home Road Interchange with an Overcrossing

Intersection	Distance from Road Centerline to Maximum CO Concentration Without/With Project (Meters)	Without/With Project 1 Hr CO Concentration (ppm)	Project Related 1 Hr CO Concentration Increase (ppm)	Without/With Project 8 Hr CO Concentration (ppm)	Project Related 8 Hr CO Concentration Increase (ppm)	Exceeds State Standards	
						1 Hr (20 ppm)	8 Hr (9 ppm)
Highland Springs Ave. and 8th St.	14 / 14	3.2 / 3.0	-0.2	1.8 / 1.6	-0.1	No	No
	14 / 14	3.1 / 2.9	-0.2	1.7 / 1.5	-0.1	No	No
	14 / 14	3.1 / 2.8	-0.3	1.7 / 1.5	-0.2	No	No
	21 / 19	2.9 / 2.6	-0.3	1.5 / 1.3	-0.2	No	No
Highland Springs Ave. and 6th St.	22 / 22	2.3 / 2.4	0.1	1.1 / 1.2	0.1	No	No
	22 / 24	2.3 / 2.4	0.1	1.1 / 1.2	0.1	No	No
	24 / 24	2.3 / 2.4	0.1	1.1 / 1.2	0.1	No	No
	24 / 22	2.3 / 2.3	0.0	1.1 / 1.1	0.0	No	No
Highland Springs Ave. and I-10 WB Ramps	7 / 7	2.4 / 3.0	0.6	1.2 / 1.6	0.4	No	No
	14 / 14	2.4 / 2.9	0.5	1.2 / 1.5	0.4	No	No
	7 / 15	2.4 / 2.9	0.5	1.2 / 1.5	0.4	No	No
	15 / 14	2.4 / 2.8	0.4	1.2 / 1.5	0.3	No	No
Highland Springs Ave. and I-10 EB Ramps	7 / 7	3.0 / 2.8	-0.2	1.6 / 1.5	-0.1	No	No
	14 / 14	2.8 / 2.7	-0.1	1.5 / 1.4	-0.1	No	No
	14 / 15	2.8 / 2.7	-0.1	1.5 / 1.4	-0.1	No	No
	14 / 14	2.7 / 2.6	-0.1	1.4 / 1.3	-0.1	No	No
Highland Springs Ave. and 1st St.	19 / 21	3.0 / 3.0	0.0	1.6 / 1.6	0.0	No	No
	21 / 19	3.0 / 3.0	0.0	1.6 / 1.6	0.0	No	No
	19 / 19	3.0 / 2.9	-0.1	1.6 / 1.5	-0.1	No	No
	21 / 21	3.0 / 2.9	-0.1	1.6 / 1.5	-0.1	No	No
Highland Home Rd. and Wilson St.	19 / 19	3.5 / 3.4	-0.1	2.0 / 1.9	-0.1	No	No
	21 / 21	3.4 / 3.3	-0.1	1.9 / 1.8	-0.1	No	No
	19 / 19	3.3 / 3.2	-0.1	1.8 / 1.8	-0.1	No	No
	19 / 21	3.3 / 3.2	-0.1	1.8 / 1.8	-0.1	No	No
Highland Home Rd. and Ramsey St.	22 / 22	2.3 / 2.3	0.0	1.1 / 1.1	0.0	No	No
	22 / 22	2.2 / 2.2	0.0	1.1 / 1.1	0.0	No	No
	22 / 22	2.2 / 2.2	0.0	1.1 / 1.1	0.0	No	No
	22 / 22	2.2 / 2.2	0.0	1.1 / 1.1	0.0	No	No

Table 4.1-G: CO Concentrations under the Proposed Project – Replacement of I-10/Highland Home Road Interchange with an Overcrossing

Intersection	Distance from Road Centerline to Maximum CO Concentration Without/With Project (Meters)	Without/With Project 1 Hr CO Concentration (ppm)	Project Related 1 Hr CO Concentration Increase (ppm)	Without/With Project 8 Hr CO Concentration (ppm)	Project Related 8 Hr CO Concentration Increase (ppm)	Exceeds State Standards	
						1 Hr (20 ppm)	8 Hr (9 ppm)
Highland Home Rd. and Westward Ave.	12 / 12	2.2 / 2.3	0.1	1.1 / 1.1	0.1	No	No
	12 / 12	2.2 / 2.2	0.0	1.1 / 1.1	0.0	No	No
	12 / 12	2.2 / 2.2	0.0	1.1 / 1.1	0.0	No	No
	12 / 12	2.2 / 2.2	0.0	1.1 / 1.1	0.0	No	No
Sunset Ave. and Wilson St.	19 / 19	2.7 / 2.5	-0.2	1.4 / 1.3	-0.1	No	No
	21 / 19	2.7 / 2.4	-0.3	1.4 / 1.2	-0.2	No	No
	19 / 19	2.6 / 2.4	-0.2	1.3 / 1.2	-0.1	No	No
	19 / 17	2.6 / 2.2	-0.4	1.3 / 1.1	-0.3	No	No
Sunset Ave. and Ramsey St.	19 / 19	2.3 / 2.3	0.0	1.1 / 1.1	0.0	No	No
	22 / 22	2.3 / 2.3	0.0	1.1 / 1.1	0.0	No	No
	22 / 22	2.2 / 2.2	0.0	1.1 / 1.1	0.0	No	No
	21 / 21	2.2 / 2.2	0.0	1.1 / 1.1	0.0	No	No
Sunset Ave. and I-10 WB Ramps	12 / 12	2.9 / 2.9	0.0	1.5 / 1.5	0.0	No	No
	12 / 12	2.9 / 2.9	0.0	1.5 / 1.5	0.0	No	No
	12 / 12	2.8 / 2.8	0.0	1.5 / 1.5	0.0	No	No
	7 / 7	2.7 / 2.7	0.0	1.4 / 1.4	0.0	No	No
Sunset Ave. and I-10 EB Ramps	7 / 15	2.6 / 3.0	0.4	1.3 / 1.6	0.3	No	No
	15 / 7	2.6 / 2.8	0.2	1.3 / 1.5	0.1	No	No
	7 / 14	2.4 / 2.6	0.2	1.2 / 1.3	0.1	No	No
	14 / 7	2.3 / 2.6	0.3	1.1 / 1.3	0.2	No	No
Sunset Ave. and Lincoln St.	15 / 15	2.8 / 2.6	-0.2	1.5 / 1.3	-0.1	No	No
	12 / 12	2.6 / 2.5	-0.1	1.3 / 1.3	-0.1	No	No
	15 / 15	2.6 / 2.5	-0.1	1.3 / 1.3	-0.1	No	No
	15 / 12	2.6 / 2.3	-0.3	1.3 / 1.1	-0.2	No	No

Table 4.1-G: CO Concentrations under the Proposed Project – Replacement of I-10/Highland Home Road Interchange with an Overcrossing

Intersection	Distance from Road Centerline to Maximum CO Concentration Without/With Project (Meters)	Without/With Project 1 Hr CO Concentration (ppm)	Project Related 1 Hr CO Concentration Increase (ppm)	Without/With Project 8 Hr CO Concentration (ppm)	Project Related 8 Hr CO Concentration Increase (ppm)	Exceeds State Standards	
						1 Hr (20 ppm)	8 Hr (9 ppm)
Sunset Ave. and Westward Ave.	7 / 7	1.8 / 1.8	0.0	0.8 / 0.8	0.0	No	No
	8 / 8	1.8 / 1.7	-0.1	0.8 / 0.7	-0.1	No	No
	7 / 7	1.8 / 1.7	-0.1	0.8 / 0.7	-0.1	No	No
	8 / 8	1.8 / 1.7	-0.1	0.8 / 0.7	-0.1	No	No

Source: LSA Associates, Inc., September 2011.
Includes ambient 1 hr concentration of 1.5 ppm and ambient 8 hr concentration of 1.3 ppm. Measured at the 506 W. Flint St., Lake Elsinore, CA, AQ Station in Riverside County.
CO = carbon monoxide
EB = eastbound
hr = hour
I-10 = Interstate 10
ppm = parts per million
WB = westbound

Therefore, the proposed project is consistent with the regional AQMP, and impacts related to this threshold are less than significant.

Mitigation Measures. The proposed project would result in less than significant air quality impacts. Mitigation measures are not required.

4.1.6 Cumulative Impacts

As defined in Section 15130 of the CEQA Guidelines, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects. The proposed project's cumulative impact area for air quality would be the City of Banning, which is the same impact area as considered for the proposed project. The proposed project's potential air quality impacts are based on traffic volumes developed in the traffic studies (Appendix B); these studies were a cumulative analysis based on General Plan buildout conditions.

Therefore, the air quality analysis prepared for the proposed project is also a cumulative analysis and based on General Plan buildout conditions. The project does not include any construction activities and would not contribute to cumulative construction air quality impacts from other planned and future projects. In addition, the proposed project results in less than significant impacts and would not create any project contribute to cumulative air quality impacts in the project vicinity. Therefore, the cumulative air quality impacts are considered less than significant.

4.1.7 Level of Significance After Mitigation

Impacts to air quality as a result of project implementation would be less than significant. No mitigation is required.

4.2 CULTURAL RESOURCES

Introduction

The purpose of this section is to analyze potential project-related impacts to paleontological, archaeological, and historic resources. Information and analysis in this section is based mainly on the City of Banning (City) General Plan, Archaeological and Cultural Resources Element (January 2006) and the Senate Bill (SB) 18 Consultation Memorandum (SB 18 Memo), prepared by LSA Associates, Inc. (LSA) March 6, 2012. The SB 18 Memo is provided in Appendix D.

4.2.1 Existing Environmental Setting

Paleontological Resources. Paleontological resources are fossilized remnants of prehistoric plants or animals preserved in soil or rock layers over time. Fossils and trace fossils are typically preserved in sedimentary rock units, typically in fine-to-medium-grained marine lake and stream deposits such as limestone, sandstone, or shale, and in ancient soils. Fossils are also typically found in coarse-grained sediments including coarse alluvium or conglomerates. Pleistocene sediments in the Banning-Beaumont area have a high potential to contain significant, non-renewable paleontological resources, especially in such sediments such as silty sandstone. Over 50 locations where paleontological resources exist in the City have been identified within the San Timoteo and the Mount Eden Formations.[1] However, the 17 intersections in the study area have low or undetermined potential for paleontological resources.[2]

Archaeological Resources. According to the Archaeological and Cultural Resources Element of the City's General Plan, a total of 20 archaeological sites have been identified and recorded within the City, 12 of which are Native American sites. Several isolated artifacts have also been identified within the City limits. Less than one-third of the total acreage within the City has been surveyed. The majority of the areas previously surveyed are located in the southern portion of the City on the San Gorgonio Pass/Coachella Valley floor, and these surveys encountered relatively few archaeological sites or other cultural resources.

The majority of Native American sites in the City consist of Native American ceramic and lithic scatters, bedrock milling features, rock cairns, trails, roasting pits, and fire hearths. At least seven of the archaeological sites recorded in the City contained bedrock milling features, all of them located in the foothills on the southern edge of the City. A rock art panel was also found at one of these seven sites. At least five of these sites were described as Native American villages. Some of these sites may have been associated with the known Cahuilla village of Pihatapa, which has been identified as being located in Banning Canyon.

Cahuilla cultural authorities have concluded that the Gilman Ranch area has a high sensitivity for archaeological resources, both prehistoric and historic. The foothills of the San Bernardino and San Jacinto Mountains are of moderate sensitivity, as are the terraces along the San Gorgonio River. The downtown area, meanwhile, demonstrates a moderate sensitivity for archaeological resources from

1 Draft Environmental Impact Report (EIR) for the Butterfield Specific Plan, June 2011.
2 Riverside Land Information System, accessed April 24, 2012.

this historic period. As shown in Exhibit IV-6 in the City's General Plan (provided as Figure 4.2-1, Archaeological Resources Sensitivity Map), the majority of the study area, which includes the eight intersections and the area of the designated I-10/Highland Home Road interchange, is located in a low archaeological sensitivity area, with the exception of the area within downtown Banning, which includes the majority of the historical resources in the City of Banning. Downtown Banning is located east of 8th Street and west of Hargrave Street, north of the I-10 freeway.

Historic Resources. Historic resources include buildings, structures, improvements, and remnants associated with a significant historic event or person(s) and/or that have a historically significant style, design, or achievement. In general, resources greater than 50 years old have the potential to be considered a historic resource. The "historic period" of California generally includes the Spanish, Rancho, and American Periods. The Spanish Period began with the establishment of Spanish Colonial military outposts. Since 1834, cattle ranching was prominent throughout the region.[1]

Present day State Route 111 (SR-111) which connects the City to the City of Palm Springs follows the historic Bradshaw Trail, which was founded in 1892 by William David Bradshaw. The Bradshaw Trail served as the shortest route between the California coast and the gold mines near the Colorado River. The trail served as the primary route for stagecoaches traveling between the coastal area of Southern California to the gold fields near present day Ehrenberg, Arizona. It also served as a U.S. mail route between Los Angeles and Santa Fe, New Mexico.

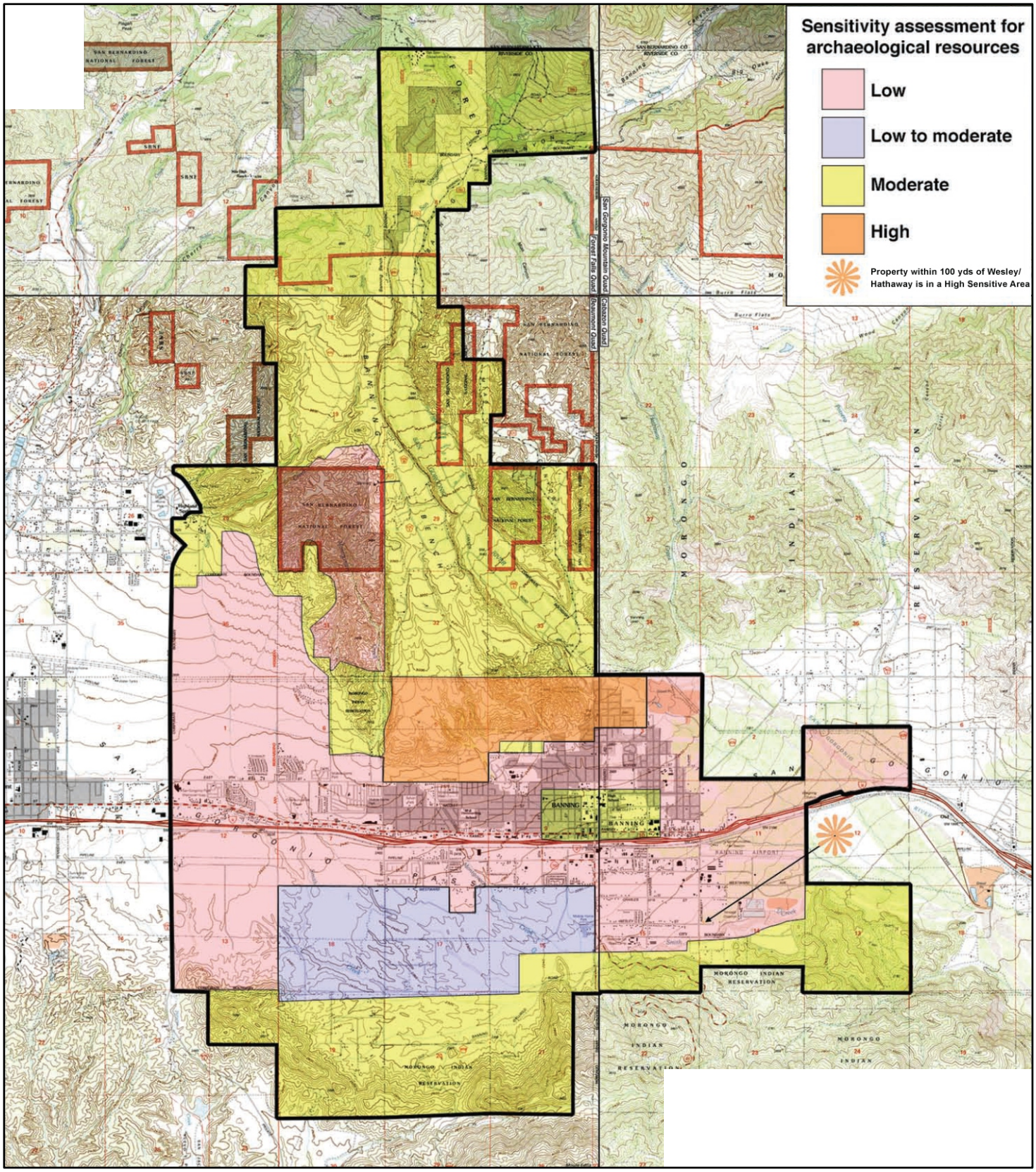
According to the Archaeological and Cultural Resources Element of the City's General Plan, a total of 110 historic buildings and other built environment features have been recorded within the planning area. The vast majority of these sites were identified and listed between 1982 and 1983, through an effort sponsored by the Riverside County Historical Commission. These sites included homes and commercial buildings dating back to the 1880s and sites ranging from early homesteads to mid-20th century urban development. The historic buildings are primarily located within downtown Banning, in the area of Ramsey Street and San Gorgonio Avenue. The dates of these historic buildings range from the mid-1880s to the late 1930s, with the majority of the buildings dating to the 20th century. As shown in Exhibit IV-7 in the City's General Plan (provided as Figure 4.2-2, Historical Resources Sensitivity Map), the majority of the study area, which includes the eight intersections and the area of the designated I-10/Highland Home Road interchange, is located in a low historical sensitivity area, with the exception of the area within downtown Banning, discussed above.

4.2.2 Regulatory Setting

Federal.

National Register of Historic Places. The National Historic Preservation Act (NHPA), originally adopted in 1966, provides the most comprehensive national policy with regards to historic preservation. The Act is designed to encourage the preservation and wise use of historic resources within the U.S and establishes the policy of the U.S. Government regarding historic

[1] Draft EIR for the Butterfield Specific Plan, June 2011.



LSA

FIGURE 4.2-1

N

0 1.25 2.5
MILES

City of Banning Circulation Element General Plan Ammendment

Archaeological Resources SensitivityMap

SOURCE: USGS 7.5' Quad - Beaumont (1988), Cabazon (1988), Forest Falls (1994), CA; Riverside LAFCO (2006); SCAG (2008)

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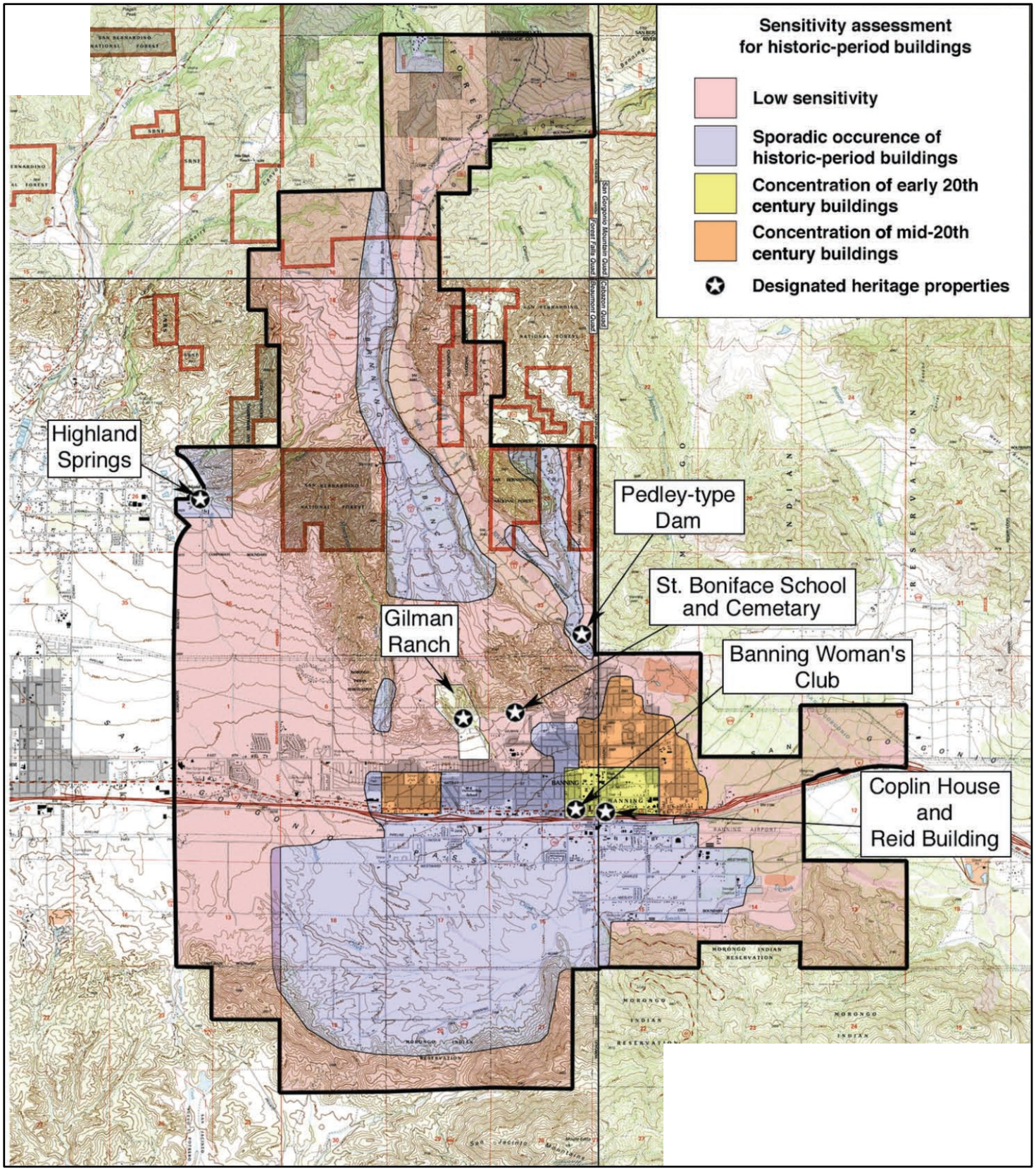

LSA

FIGURE 4.2-2

City of Banning Circulation Element General Plan Amendment

Historical Resources SensitivityMap

SOURCE: USGS 7.5' Quad - Beaumont (1988), Cabazon (1988), Forest Falls (1994), CA; Riverside LAFCO (2006); SCAG (2008)

I:\COB1101\G\Historical_Sensitivity.cdr (4/25/12)

preservation. The Act is intended to "coordinate and support public and private efforts to identify, evaluate, and protect...historic and archaeological resources. Properties listed in the Register include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture."[1]

Eligibility for listing in the National Register is evaluated for a particular historic resource by applying four basic criteria. The criteria generally require that the resource be at least 50 years of age and of significance at the local, State, or national level, according to one or more of the following:

a. It is associated with events that have made a significant contribution to the broad patterns of local or regional history;

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

c. It embodies the distinctive characteristic of a type, period, region, or method or construction, or represents the work of an important creative individual, or possesses high artistic values, or that represents a significant and distinguishable entity whose components lack individual distinction; and/or,

d. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

Eligibility for listing on the National Register requires that a resource possess integrity, or the ability of a property to convey its significance. Location, design, setting, materials, workmanship, feeling, and association can influence a site's integrity. The particular National Register criterion under which the resource is considered eligible for listing is considered in determining which of these factors applies.

State of California.

CEQA Requirements. The California Environmental Quality Act (CEQA) defines a "historical resource" as a resource that meets one or more of the following criteria: (1) listed in, or determined eligible for listing in, the California Register of Historical Resources (California Register); (2) listed in a local register of historical resources as defined in PRC Section 5020.1(k); (3) identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); or (4) determined to be a historical resource by a project's Lead Agency (PRC Section 21084.1 and State CEQA Guidelines Section 15064.5(a)). A historical resource consists of:

> "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…. Generally, a resource shall be considered by the lead agency to be 'historically significant'

[1] National Park Service – National Register of Historic Places (National Register). http://www.nps.gov/nr/about.htm. Accessed January 2007.

> if the resource meets the criteria for listing on the California Register of Historical Resources" (State CEQA Guidelines Section 15064.5(a)(3)).

In accordance with State CEQA Guidelines Section 15064.5(b), a substantial adverse change in the significance of a historical resource is a significant effect on the environment.

CEQA requires a Lead Agency to determine whether an archaeological cultural resource meets the definition of a historical resource, a unique archaeological resource, or neither (State CEQA Guidelines Section 15064.5(c)). Prior to considering potential impacts, the Lead Agency must determine whether an archaeological cultural resource meets the definition of a historical resource in State CEQA Guidelines Section 15064.5(c)(1). If the archaeological cultural resource meets the definition of a historical resource, it is treated like any other type of historical resource in accordance with State CEQA Guidelines Section 15126.4. If the archaeological cultural resource does not meet the definition of a historical resource, then the Lead Agency determines whether it meets the definition of a unique archaeological resource as defined in CEQA Section 21083.2(g). In practice, however, most archaeological sites that meet the definition of a unique archaeological resource will also meet the definition of a historical resource. Should the archaeological cultural resource meet the definition of a unique archaeological resource, it must be treated in accordance with CEQA Section 21083.2. If the archaeological cultural resource does not meet the definition of a historical resource or an archaeological resource, the effects to the resource are not considered significant effects on the environment (State CEQA Guidelines Section 15064.5(c)(4)).

CEQA also requires that a determination be made as to whether a project would directly or indirectly destroy a unique paleontological resource or site or unique geological feature (State CEQA Guidelines Appendix G(v)(c)). If an impact is significant, CEQA requires feasible measures to minimize the impact (California Code of Regulations [CCR] Title 14(3) Section 15126.4 (a)(1)). California PRC Section 5097.5 also applies to paleontological resources (see below).

California Register of Historical Resources (PRC Section 5020 et seq.). State law also protects cultural resources by requiring evaluations of the significance of prehistoric and historic resources in CEQA documents. A cultural resource is an important historical resource if it meets any of the criteria found in Section 15064.5(a) of the State CEQA Guidelines. These criteria are nearly identical to those for the National Register, which are listed above. For a property to be eligible for inclusion on the California Register, one or more of the following criteria must be met:[1]

1) It is associated with the events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;
2) It is associated with the lives of persons important to local, California, or national history;

[1] California State Parks - Office of Historic Preservation. http://ohp.parks.ca.gov/default.asp?page_id=21238. Accessed January 2007.

3) It embodies the distinctive characteristics of a type, period, region, or method or construction, or represents the work of a master, or possesses high artistic values; and/or,

4) It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

Senate Bill 18 Tribal Consultation. California Government Code Section 65352.3 (adopted pursuant to the requirements of Senate Bill [SB] 18) requires local governments to contact, refer plans to, and consult with tribal organizations prior to making a decision to adopt or amend a General or Specific Plan. The tribal organizations eligible to consult have traditional lands in a local government's jurisdiction and are identified, upon request, by the NAHC. As noted in the California Office of Planning and Research's *Tribal Consultation Guidelines* (2005), "The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places."

Public Resources Code (PRC) Section 5097.5. PRC Section 5097.5 provides for the protection of cultural and paleontological resources and prohibits the removal, destruction, injury, or defacement of archaeological and paleontological features on any lands under the jurisdiction of State or local authorities.

City of Banning.

General Plan. The City of Banning's General Plan contains the City's historical preservation goals and policies which include the documentation, maintenance, preservation, conservation, and enhancement of archaeological and historic sites, artifacts, traditions, and other elements of the City's cultural heritage. Applicable policies and programs contained in the Archaeological and Cultural Resources Element of the General Plan are listed below:

Policy 3: Establish and maintain a confidential inventory of archaeological and historical resources within the City, including those identified by the Eastern Information Center (EIC) at the University of California, Riverside, and in focused cultural resources studies.

Policy 4: Sensitive archaeological and historic resources shall be protected from vandalism and illegal collection, to the greatest extent possible.

Program 4.A: Mapping and similar information, which identifies specific locations of sensitive cultural resources, shall be maintained in a confidential manner, and access to such information shall be provided only to those with appropriate professional or organizational ties.

Policy 5: Encourage public participation in and appreciation of the City's cultural heritage.

Program 5.B: Support the efforts of local cultural associations to acquire historical materials and artifacts, and to educate the public about the City's and region's cultural heritage.

4.2.3 Methodology

The City conducted a Native American consultation as required by SB 18 (Burton 2004) for the City's Circulation Element General Plan Amendment (GPA). As part of this process, the Native American Heritage Commission (NAHC) conducted a Sacred Lands File (SLF) search. Letter notifications for the proposed project were sent to Native American contacts recommended by the NAHC, and two rounds of attempted follow-up communication with the Native American contacts were conducted depending on their response.

The Archaeological and Cultural Resources Element of the General Plan and recent environmental documents were also reviewed to determine the sensitivity of the project study area as it relates to paleontological, cultural, and historic resources.

4.2.4 Thresholds of Significance

The following thresholds of significance criteria are based on Appendix G of the CEQA Guidelines and were used to evaluate potentially significant impacts on cultural resources that could occur as a result of project implementation. The project would result in significant impact related to cultural resources if it would:

- Cause a substantial adverse change in the significance of an historical resource as defined in CEQA Guidelines Section 15064.5.
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5.
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
- Disturb any human remains, including those interred outside of formal cemeteries.

4.2.5 Impacts and Mitigation

Less Than Significant Impacts.

Threshold 4.2.1 Cause a substantial adverse change in the significance of an historical resource as defined in CEQA Guidelines Section 15064.5.

Historic Resources. The proposed project includes an amendment to the City's existing General Plan. These policy changes include revising the existing policy for acceptable level of service (LOS) criteria from C to D for intersections within the City and replacing the designated I-10/Highland Home Road interchange with an overcrossing. This type of policy change does not include any ground disturbance and does not have the potential to impact known historical buildings, structures, objects, or archeological resources. Although historical resources are present within the City, the action of the proposed project is to amend the Circulation Element of the City's existing General Plan, and the project does not include any grading or excavation activities. Therefore, none of the historic resources identified in Figure 4.2-2 would be impacted by the proposed GPA, and impacts to historic resources are considered less than significant. No mitigation is required.

Threshold 4.2.2 Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5.

Cultural/Archaeological Resources. In compliance with CEQA and SB 18, Native American consultation with the NAHC was conducted for the proposed project. As part of this process, the NAHC conducted an SLF search on January 10, 2012. The results provided in a letter from the NAHC indicated an absence of Native American cultural resources within the project study area. The NAHC response letter also contained a list of seven Native American contacts with affiliations to the Cahuilla and Serrano tribes and recommended that these individuals be contacted for information regarding cultural resources that could be impacted by the proposed project. The Native American contacts included representatives from the Ramona Band of Cahuilla Mission Indians, the Serrano Nation of Indians, the Santa Rosa Band of Mission Indians, the Cahuilla Band of Indians, and the Morongo Band of Mission Indians.

Project notification letters dated January 25, 2012, were sent out by certified mail to all seven contacts as recommended by the NAHC. These letters described the proposed project and requested information regarding cultural resources. These letters also provided a City contact should the tribes wish to request government-to-government consultation.

No initial responses were received as a result of the project notification letters. However, two rounds of follow up were made through telephone calls and emails between February 10 and 15, 2012. Two responses were received as a result of these follow-up outreach efforts.

Gabriella Rubalcava, representing the Santa Rosa Band of Mission Indians Tribal Council, responded by email on February 15, 2012, indicating that the Santa Rosa Band of Mission Indians has no specific knowledge of cultural resources in the City and will defer to Joe Ontiveros in the Cultural Resources Department for the Soboba Band of Luiseño Indians regarding further consultation and/or monitoring that may be required. Based on Ms. Rubulcava's response, the project information was sent to Mr. Ontiveros by email on February 16, 2012. No response was received from Mr. Ontiveros for the proposed project.

Yvonne Markel, the Environmental Office Manager for the Cahuilla Band of Indians, also responded to the second round of outreach efforts by email on March 2, 2012. Ms. Markel indicated that the Cahuilla Band of Indians had no knowledge of cultural resources within the City, and while it is outside of their reservation, it is within the tribe's Traditional Use Area. On behalf of the tribe, Ms. Markel requested that as a courtesy, they continue to receive updates and information as the project progresses, particularly with regard to cultural resources, if discovered. The tribe also recommended monitoring by approved cultural monitors during any future ground-disturbing activities. Ms. Markel indicated that they would defer further consultation and monitoring efforts to the Morongo Band of Mission Indians and their Cultural Resources Department. No additional responses were received from any of the other parties contacted. For additional information, please see the SB 18 Consultation Memo contained in Appendix D.

As stated previously, the proposed project would consist of a policy change, and would not have the potential to physically impact known archaeological or cultural resources. Therefore, the proposed

project is considered to have a less than significant impact to historical or archaeological resources, as defined in CEQA Guidelines Section 15064.5. No mitigation is required.

Threshold 4.2.3 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Paleontological Resources. The proposed project includes policy changes to the City's current General Plan. Although the eight intersections and the study area located near Highland Home Road and the I-10 freeway within the study area have low or undetermined potential for paleontological resources,[1] the project is limited to policy changes through the revision of the existing policy for acceptable LOS criteria from C to D for intersections within the City and replacing the designated future I-10/Highland Home Road interchange with an overcrossing. This type of policy change does not have the potential to impact unique paleontological resources or sites, or unique geologic features because the project does not include physical changes that would result in potential impacts to paleontological resources through grading or construction. Therefore, no impacts are anticipated, and no mitigation is required.

Archeological and Historical Resources. As shown in Exhibits IV-6 and IV-7 in the City's General Plan (provided as Figures 4.2-1 and 4.2-2 in this EIR), the majority of the study area, which includes the eight study area intersections and the area of the proposed I-10/Highland Home Road interchange is located in low archaeological and historical sensitivity areas with the exception of the area within downtown Banning (located between east of 8th Street and west of Hargrave Street, north of the I-10 freeway). This type of policy change does not have the potential to impact archeological resources or sites, or historical resources because the project does not include physical changes that would result in potential impacts to paleontological resources through grading or construction. Therefore, no impacts are anticipated, and no mitigation is required.

Threshold 4.2.4 Disturb any human remains, including those interred outside of formal cemeteries.

Human Remains. The proposed project is not anticipated to disturb any human remains because the GPA policy changes do not involve any ground-disturbing activities. However, if future grading, trenching, or other earth-moving activities were to occur in the project area, there would be a possibility that human remains could be encountered. Future projects that include ground-disturbing activities would be required to comply with applicable State laws, including State Health and Safety Code Section 7050.5 that requires the County Coroner to make a determination of the origin and disposition of such remains pursuant to PRC Section 5097.98. Because the proposed GPA project would consist of a policy change, and would not have the potential for ground disturbance, the proposed project would not disturb any human remains, including those interred outside formal cemeteries. Therefore, no impacts are anticipated, and no mitigation is required.

[1] Riverside Land Information System, accessed. April 24, 2012.

Potentially Significant Impacts. There are no potentially significant impacts related to historical, paleontological, or archaeological resources as part of the proposed project, because the project is limited to policy changes to the City's Circulation Element of the General Plan and does not include any grading or excavation activities.

Mitigation Measures. No potentially significant impacts to cultural resources have been identified and, therefore, no mitigation measures are required.

4.2.6 Cumulative Impacts

The cumulative study area for cultural resources is the City of Banning. The City's General Plan contains a number of policies and programs intended to protect the City's cultural heritage and cultural resources (see Section 4.2.3, Regulatory Setting, of this analysis). As the proposed GPA does not result in any impacts to paleontological, archaeological and historical resources it would not contribute to cumulative impacts to these cultural resources.

Additionally, the SB 18 Native American consultation conducted for the proposed project did not result in the identification of any specific cultural resources in the City. Because the project involves policy changes to the City's General Plan and no ground-disturbing activities, the project is not anticipated to contribute to any cumulative loss of or impacts to paleontological, archaeological, or historical resources within the City or region. Therefore, implementation of the project would be considered to be less than cumulatively significant.

4.2.7 Level of Significance After Mitigation

No mitigation is required; impacts to cultural, historical, or paleontological resources as a result of project implementation would be less than significant.

4.3 GLOBAL CLIMATE CHANGE AND GREENHOUSE GAS EMISSIONS

Introduction

Global climate change (GCC) describes alterations in weather features (e.g., temperature, wind patterns, precipitation, and storms) that occur across the Earth as a whole. Global temperatures are modulated by naturally occurring components in the atmosphere (e.g., water vapor, carbon dioxide [CO_2], methane [CH_4], and nitrous dioxide [N_2O]) that capture heat radiated from the Earth's surface, which in turn warms the atmosphere. This natural phenomenon is known as the "greenhouse effect." That being said, excessive human-generated greenhouse gas (GHG)[1] emissions can and are altering the global climate.

This analysis of GHGs provides a discussion of the physical setting of the project area, as well as the existing global climate setting, of the regulatory framework for GCC, and of the potential global climate-related emissions associated with the proposed project. Modeled project emissions are based on project design, projected energy and resource use on site, construction emissions, vehicle data, and the project trip generation estimate prepared for a proposed project.

State law defines GHG to include the following: CO_2, CH_4, N_2O, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride (Health and Safety Code, Section 38505(g)). The most common GHG that results from human activity is CO_2, followed by CH_4, and N_2O.

This section evaluates potential GHG emissions impacts associated with the proposed project, and identifies mitigation measures recommended for potentially significant impacts. This section summarizes information provided in the Air Quality Analysis prepared by LSA Associates, Inc. (LSA, April 2012). The Air Quality Analysis Technical Report is included in Appendix C of this Environmental Impact Report (EIR). None of the comments received on the Notice of Preparation (NOP) pertained to GHG emissions.

4.3.1 Existing Environmental Setting

Global Climate Change and Its Sources. GCC is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other significant changes in climate (such as precipitation or wind) that last for an extended period of time. The term "global climate change" is often used interchangeably with the term "global warming," but "global climate change" is preferred to "global warming" because it helps convey that there are other changes in addition to rising temperatures.

Climate change refers to any change in measures of weather (such as temperature, precipitation, or wind) lasting for an extended period (decades or longer). Climate change may result from natural factors, such as changes in the sun's intensity; natural processes within the climate system, such as changes in ocean circulation; or human activities, such as the burning of fossil fuels, land clearing, or

[1] The principle GHGs of concern contributing to the greenhouse effect are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Water vapor is the largest naturally occurring GHG; however, it is not identified as an anthropogenic constituent of concern.

agriculture. The primary observed effect of GCC has been a rise in the average global tropospheric[1] temperature of 0.36 degrees Fahrenheit (°F) per decade, determined from meteorological measurements worldwide between 1990 and 2005. Climate change modeling shows that further warming could occur, which would induce additional changes in the global climate system during the current century. Changes to the global climate system, ecosystems, and the environment of California could include higher sea levels, drier or wetter weather, changes in ocean salinity, changes in wind patterns, or more energetic aspects of extreme weather, including droughts, heavy precipitation, heat waves, extreme cold, and increased intensity of tropical cyclones. Specific effects in California might include a decline in the Sierra Nevada snowpack, erosion of California's coastline, and seawater intrusion in the Delta.

Global surface temperatures have risen by 1.33°F ± 0.32°F over the last 100 years (1906 to 2005). The rate of warming over the last 50 years is almost double that over the last 100 years.[2] The latest projections, based on state-of-the art climate models, indicate that temperatures in California are expected to rise 3–10.5°F by the end of the century.[3] The prevailing scientific opinion on climate change is that "most of the warming observed over the last 50 years is attributable to human activities."[4] Increased amounts of CO_2 and other GHGs are the primary causes of the human-induced component of warming. The observed warming effect associated with the presence of GHGs in the atmosphere (from either natural or human sources) is often referred to as the greenhouse effect.[5]

GHGs are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced GCC are:[6]

- Carbon dioxide (CO_2)
- Methane (CH_4)
- Nitrous oxide (N_2O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulfur hexafluoride (SF_6)

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1 The troposphere is the zone of the atmosphere characterized by water vapor, weather, winds, and decreasing temperature with increasing altitude.

2 IPCC, 2007. Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the IPCC.

3 California Climate Change Center, 2006. Our Changing Climate. Assessing the Risks to California. July.

4 Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2007: The Physical Science Basis*, http://www.ipcc.ch.

5 The temperature on Earth is regulated by a system commonly known as the "greenhouse effect." Just as the glass in a greenhouse lets heat from sunlight in and reduces the amount of heat that escapes, greenhouse gases like carbon dioxide, methane, and nitrous oxide in the atmosphere keep the Earth at a relatively even temperature. Without the greenhouse effect, the Earth would be a frozen globe; thus, although an excess of greenhouse gas results in global warming, the *naturally occurring* greenhouse effect is necessary to keep our planet at a comfortable temperature.

6 The greenhouse gases listed are consistent with the definition in Assembly Bill (AB) 32 (Government Code 38505), as discussed later in this section.

Over the last 200 years, human activities have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere, and enhancing the natural greenhouse effect, which is believed to be causing global warming. While GHGs produced by human activities include naturally-occurring GHGs such as CO_2, CH_4, and N_2O, some gases, like HFCs, PFCs, and SF_6 are completely new to the atmosphere. Certain other gases, such as water vapor, are short-lived in the atmosphere as compared to these GHGs that remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is generally excluded from the list of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation. For the purposes of this analysis, the term "GHGs" will refer collectively to the six gases identified in the bulleted list provided above.

These gases vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The global warming potential is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and the length of time that the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to CO_2, the most abundant GHG. The definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO_2 over a specified time period. GHG emissions are typically measured in terms of metric tons[1] of "CO_2 equivalents" (CO_2e). Table 4.3-A shows the GWPs for each type of GHG. For example, SF_6 is 22,800 times more potent at contributing to global warming than carbon dioxide.

Table 4.3-A: Global Warming Potential of Greenhouse Gases

Gas	Atmospheric Lifetime (Years)	Global Warming Potential (100-year Time Horizon)
Carbon Dioxide (CO_2)	50–200	1
Methane (CH_4)	12	25
Nitrous Oxide (NO_x)	114	298
HFC-23	270	14,800
HFC-134a	14	1,430
HFC-152a	1.4	124
PFC: Tetrafluoromethane (CF_4)	50,000	7,390
PFC: Hexafluoromethane (C_2F_6)	10,000	12,200
Sulfur Hexafluoride (SF_6)	3,200	22,800
Halons	16–65	1620–7030

Source: IPCC, 2007. *Climate Change 2007: The Physical Science Basis*.
Contribution of Working Group I to the Fourth Assessment Report of the IPCC.
HFC = Hydrofluorocarbons
IPCC = Intergovernmental Panel on Climate Change
PFC = Perfluorocarbons

[1] A metric ton is equivalent to approximately 1.1 tons.

The following discussion summarizes the characteristics of the six primary GHGs.

Carbon Dioxide. In the atmosphere, carbon generally exists in its oxidized form, as CO_2. Natural sources of CO_2 include the respiration (breathing) of humans, animals and plants, volcanic outgassing, decomposition of organic matter, and evaporation from the oceans. Human-caused sources of CO_2 include the combustion of fossil fuels and wood, waste incineration, mineral production, and deforestation. The Earth maintains a natural carbon balance, and when concentrations of CO_2 are upset, the system gradually returns to its natural state through natural processes. Natural changes to the carbon cycle work slowly, especially compared to the rapid rate at which humans are adding CO_2 to the atmosphere. Natural removal processes, such as photosynthesis by land- and ocean-dwelling plant species, cannot keep pace with this extra input of human-made CO_2, and consequently, the gas is building up in the atmosphere. The concentration of CO_2 in the atmosphere has risen approximately 30 percent since the late 1800s.[1]

In 2002, CO_2 emissions from fossil fuel combustion accounted for approximately 98 percent of human-made CO_2 emissions and approximately 84 percent of California's overall GHG emissions (CO_2e). The transportation sector accounted for California's largest portion of CO_2 emissions, with gasoline consumption making up the greatest portion of these emissions. Electricity generation was California's second-largest category of GHG emissions.

Methane. CH_4 is produced when organic matter decomposes in environments lacking sufficient oxygen. Natural sources include wetlands, termites, and oceans. Anthropogenic sources include rice cultivation, livestock, landfills and waste treatment, biomass burning, and fossil fuel combustion (burning of coal, oil, natural gas, etc.). Decomposition occurring in landfills accounts for the majority of human-generated CH_4 emissions in California, followed by enteric fermentation (emissions from the digestive processes of livestock).[2] Agricultural processes such as manure management and rice cultivation are also significant sources of human-made CH_4 in California. CH_4 accounted for approximately 6 percent of gross climate change emissions (CO_2e) in California in 2002.[3] It is estimated that over 60 percent of global methane emissions are related to human-related activities.[4] As with CO_2, the major removal process of atmospheric CH_4—a chemical breakdown in the atmosphere—cannot keep pace with source emissions, and CH_4 concentrations in the atmosphere are increasing.

Nitrous Oxide. N_2O is produced naturally by a wide variety of biological sources, particularly microbial action in soils and water. Tropical soils and oceans account for the majority of natural source emissions. N_2O is a product of the reaction that occurs between nitrogen and oxygen during fuel combustion. Both mobile and stationary combustion emit N_2O, and the quantity

1 California Environmental Protection Agency (Cal/EPA). 2006. Climate Action Team Report to Governor Schwarzenegger and the Legislature. March.

2 California Air Resources Board (ARB), Greenhouse Gas Inventory Data - 1990 to 2004. http://www.arb.ca.gov/cc/inventory/data/data.htm. Accessed November 2008.

3 Ibid.

4 IPCC, 2007. Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the IPCC.

emitted varies according to the type of fuel, technology, and pollution control device used, as well as maintenance and operating practices. Agricultural soil management and fossil fuel combustion are the primary sources of human-generated N_2O emissions in California. N_2O emissions accounted for nearly 7 percent of human-made GHG emissions (CO_2e) in California in 2002.

Hydrofluorocarbons, Perfluorocarbons, and Sulfur Hexafluoride. HFCs are primarily used as substitutes for ozone-depleting substances regulated under the Montreal Protocol.[1] PFCs and SF_6 are emitted from various industrial processes, including aluminum smelting, semiconductor manufacturing, electric power transmission and distribution, and magnesium casting. There is no aluminum or magnesium production in California; however, the rapid growth in the semiconductor industry, which is active in California, leads to greater use of PFCs. HFCs, PFCs, and SF_6 accounted for about 3.5 percent of human-made GHG emissions (CO_2e) in California in 2002.[2]

Halons. These compounds are used in fire extinguishers and behave as both ozone depleting and greenhouse gases. Halon production ended in the United States in 1993. South Coast Air Quality Management District (SCAQMD) Rule 1418 – *Halon Emissions* from *Fire Extinguishing Equipment* requires the recovery and recycling of halons used in fire extinguishing systems and prohibits the sale of halon in small fire extinguishers.

Emissions Sources and Inventories. An emissions inventory that identifies and quantifies the primary human-generated sources and sinks of GHGs is a well-recognized and useful tool for addressing climate change. This section summarizes the latest information on global, United States, California, and local GHG emission inventories. However, because GHGs persist for a long time in the atmosphere (see Table 4.3-A), accumulate over time, and are generally well-mixed, their impact on the atmosphere and climate cannot be tied to a specific point of emission.

Global Emissions. Worldwide emissions of GHGs in 2004 were 27 billion metric tons of CO_2e per year.[3] Global estimates are based on country inventories developed as part of programs of the United Nations Framework Convention on Climate Change (UNFCCC).

United States Emissions. In 2008, the United States emitted approximately 7.0 billion metric tons of CO_2e or approximately 25 tons per year per person. Of the six major sectors nationwide— electric power industry, transportation, industry, agriculture, commercial, residential— the electric power

1 The Montreal Protocol is an international treaty that was approved on January 1, 1989, and was designated to protect the ozone layer by phasing out the production of several groups of halogenated hydrocarbons believed to be responsible for ozone depletion.

2 Cal/EPA. 2006. Climate Action Team Report to Governor Schwarzenegger and the Legislature. March.

3 Combined total of Annex I and Non-Annex I Country CO_2e emissions. United Nations Framework Convention on Climate Change (UNFCCC), 2007. *Greenhouse Gas Inventory Data*. Information available at http://unfccc.int/ghg_data/ghg_data_unfccc/time_series_annex_i/items/3814.php and http://maindb.unfccc.int/library/view_pdf.pl?url=http://unfccc.int/resource/docs/2005/sbi/eng/18a02.pdf.

industry and transportation sectors combined account for approximately 62 percent of the GHG emissions; the majority of the electrical power industry and all of the transportation emissions are generated from direct fossil fuel combustion. Between 1990 and 2006, total United States GHG emissions rose approximately 14.7 percent.[1]

State of California Emissions. According to the California Air Resources Board (ARB) emission inventory estimates, California emitted approximately 474 million metric tons of CO_2e ($MMTCO_2e$) emissions in 2008.[2] This large number is due primarily to the sheer size of California compared to other states. By contrast, California has the fourth-lowest per-capita CO_2 emission rate from fossil fuel combustion in the country, due to the success of its energy efficiency and renewable energy programs and commitments that have lowered the State's GHG emissions rate of growth by more than half of what it would have been otherwise.[3]

The California Environmental Protection Agency (Cal/EPA) Climate Action Team stated in its March 2006 report that the composition of gross climate change pollutant emissions in California in 2002 (expressed in terms of CO_2e) was as follows:

- CO_2 accounted for 83.3 percent
- CH_4 accounted for 6.4 percent
- N_2O accounted for 6.8 percent
- HFCs, PFCs, and SF_6 accounted for 3.5 percent[4]

The California ARB estimates that transportation was the source of approximately 38 percent of the State's GHG emissions in 2004, followed by electricity generation (both in-State and out-of-State) at 23 percent, and industrial sources at 20 percent. The remaining sources of GHG emissions were residential and commercial activities at 9 percent, agriculture at 6 percent, high global warming potential gases at 3 percent, and recycling and waste at 1 percent.[5]

The California ARB is responsible for developing the California Greenhouse Gas Emission Inventory. This inventory estimates the amount of GHGs emitted to and removed from the atmosphere by human activities within the State of California and supports the AB 32 Climate Change Program. The California ARB's current GHG emission inventory covers the years 1990–2004 and is based on fuel use, equipment activity, industrial processes, and other relevant data (e.g., housing, landfill activity, and agricultural lands). The emission inventory estimates are based on the actual amount of all fuels combusted in the State, which accounts for over 85 percent of the GHG emissions within California.

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1 U.S. Environmental Protection Agency (EPA). 2010. The 2010 U.S. Greenhouse Gas Inventory Report. http://www.epa.gov/climatechange/emissions/usinventoryreport.html. Accessed September 2010.

2 ARB, Greenhouse Gas Inventory Data - 1990 to 2004. http://www.arb.ca.gov/cc/inventory/data/data.htm. Accessed September 2010.

3 California Energy Commission (CEC), 2007. Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004 - Final Staff Report, publication # CEC-600-2006-013-SF, Sacramento, CA, December 22, 2006; and January 23, 2007, update to that report.

4 Cal/EPA. 2006. Climate Action Team Report to Governor Schwarzenegger and the Legislature. March.

5 ARB, 2008. http://www.climatechange.ca.gov/inventory/index.html. September.

The California ARB staff has projected statewide unregulated GHG emissions for 2020, which represent the emissions that would be expected to occur in the absence of any GHG reduction actions, will be 596 $MMTCO_2e$. GHG emissions from the transportation and electricity sectors as a whole are expected to increase, but remain at approximately 38 percent and 23 percent of total CO_2e emissions, respectively. The industrial sector consists of large stationary sources of GHG emissions, and the percentage of the total 2020 emissions is projected to be 17 percent of total CO_2e emissions. The remaining sources of GHG emissions in 2020 are high global warming potential gases at 8 percent, residential and commercial activities at 8 percent, agriculture at 5 percent, and recycling and waste at 1 percent.[1]

4.3.2 Regulatory Setting

Federal Regulations/Standards. The United States has historically had a voluntary approach to reducing GHG emissions. However, on April 2, 2007, the United States Supreme Court ruled that the EPA has the authority to regulate CO_2 emissions under the federal Clean Air Act (CAA). While there currently are no adopted federal regulations for the control or reduction of GHG emissions, the EPA commenced several actions in 2009 that are required to implement a regulatory approach to GCC.

On September 30, 2009, the EPA announced a proposal that focuses on large facilities emitting over 25,000 tons of GHG emissions per year. These facilities would be required to obtain permits that would demonstrate they are using the best practices and technologies to minimize GHG emissions.

On December 7, 2009, the EPA Administrator signed a final action under the CAA, finding that six GHGs (CO_2, CH_4, N_2O, HFCs, PFCs, SF_6) constitute a threat to public health and welfare, and that the combined emissions from motor vehicles cause and contribute to GCC. This EPA action does not impose any requirements on industry or other entities. However, the findings are a prerequisite to finalizing the GHG emission standards for light-duty vehicles mentioned below.

On April 1, 2010, the EPA and the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) announced a final joint rule to establish a national program consisting of new standards for model year 2012 through 2016 light-duty vehicles that will reduce GHG emissions and improve fuel economy. EPA is finalizing the first-ever national GHG emissions standards under the CAA, and NHTSA is finalizing Corporate Average Fuel Economy (CAFE) standards under the Energy Policy and Conservation Act. The EPA GHG standards require these vehicles to meet an estimated combined average emissions level of 250 grams of CO_2 per mile in model year 2016, equivalent to 35.5 miles per gallon (mpg).

State Regulations/Standards. In a response to the transportation sector's contribution to California's CO_2 emissions, Assembly Bill (AB) 1493 (Pavley) was enacted on July 22, 2002. AB 1493 requires ARB to set GHG emission standards for passenger vehicles and light-duty trucks (and other vehicles whose primary use is noncommercial personal transportation in the State) manufactured in 2009 and all subsequent model years. To set its own GHG emissions limits on motor vehicles, California must receive a waiver from the EPA. On June 30, 2009, the EPA granted the waiver of CAA preemption to

[1] ARB, 2008. http://www.climatechange.ca.gov/inventory/index.html. September.

California for its GHG emission standards for motor vehicles beginning with the 2009 model year. Notice of the decision was published in the Federal Register on July 8, 2009.

In June 2005, Governor Schwarzenegger established California's GHG emissions reduction targets in Executive Order (EO) S-3-05. This EO established the following goals for the State of California: GHG emissions should be reduced to 2000 levels by 2010; GHG emissions should be reduced to 1990 levels by 2020; and GHG emissions should be reduced to 80 percent below 1990 levels by 2050.

California's major initiative for reducing GHG emissions is outlined in AB 32, the "Global Warming Solutions Act," passed by the California State legislature on August 31, 2006. This effort aims at reducing GHG emissions to 1990 levels by 2020. The ARB has established the level of GHG emissions in 1990 at 427 $MMTCO_2e$. The emissions target of 427 MMT requires the reduction of 169 MMT from the State's projected business-as-usual 2020 emissions of 596 MMT. AB 32 requires ARB to prepare a Scoping Plan that outlines the main State strategies for meeting the 2020 deadline and to reduce GHGs that contribute to GCC. The Scoping Plan was approved by ARB on December 11, 2008, and includes measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other measures.[1] Emission reductions that are projected to result from the recommended measures in the Scoping Plan are expected to total 174 $MMTCO_2e$, which would allow California to attain the emissions goal of 427 $MMTCO_2e$ by 2020. The Scoping Plan includes a range of GHG reduction actions that may include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system. The Scoping Plan, even after Board approval, remains a recommendation. The measures in the Scoping Plan will not be binding until after they are adopted through the normal rulemaking process. The ARB rule-making process includes preparation and release of each of the draft measures, public input through workshops, and a public comment period, followed by an ARB Board hearing and rule adoption.

In addition to reducing GHG emissions to 1990 levels by 2020, AB 32 directed ARB and the newly created Climate Action Team (CAT)[2] to identify a list of "discrete early action GHG reduction measures" that can be adopted and made enforceable by January 1, 2010. On January 18, 2007, Governor Schwarzenegger signed EO S-1-07, further solidifying California's dedication to reducing GHGs by setting a new Low Carbon Fuel Standard. This EO sets a target to reduce the carbon intensity of California transportation fuels by at least 10 percent by 2020 and directs ARB to consider the Low Carbon Fuel Standard as a discrete early action measure.

In June 2007, ARB approved a list of 37 early action measures, including three discrete early action measures (Low Carbon Fuel Standard, Restrictions on High Global Warming Potential Refrigerants, and Landfill Methane Capture). Discrete early action measures are measures that were required to be adopted as regulations and made effective no later than January 1, 2010, the date established by Health and Safety Code (HSC) Section 38560.5. The ARB adopted additional early action measures

1 ARB. 2008. Climate Change Proposed Scoping Plan: a Framework for Change. October.

2 CAT is a consortium of representatives from State agencies who have been charged with coordinating and implementing GHG emission reduction programs that fall outside of ARB's jurisdiction.

in October 2007[1] that tripled the number of discrete early action measures. These measures relate to truck efficiency, port electrification, reduction of perfluorocarbons from the semiconductor industry, reduction of propellants in consumer products, proper tire inflation, and SF_6 reductions from the nonelectricity sector. The combination of early action measures is estimated to reduce State-wide GHG emissions by nearly 16 MMT.[2]

To assist public agencies in analyzing the effects of GHGs under CEQA, Senate Bill (SB) 97 (Chapter 185, 2007) required the Governor's Office of Planning and Research (OPR) to develop CEQA guidelines on how to minimize and mitigate a project's GHG emissions. On December 30, 2009, the Natural Resources Agency adopted CEQA Guidelines Amendments related to climate change. These amendments became effective on March 18, 2010.

SB 375, signed into law on October 1, 2008, is intended to enhance ARB's ability to reach AB 32 goals by directing ARB to develop regional GHG emissions reduction targets to be achieved within the automobile and light truck sectors for 2020 and 2035. ARB will work with California's 18 metropolitan planning organizations to align their regional transportation, housing, and land use plans and prepare a "Sustainable Communities Strategy" to reduce the number of vehicle miles traveled in their respective regions and demonstrate the region's ability to attain its GHG reduction targets.

California Green Buildings Standards Code (Cal Green Code) (California Code of Regulations [CCR], Title 24, part 11) was adopted by the California Building Standards Commission in 2010 and became effective in January, 2011. The Cal Green Code applies to all new constructed residential, nonresidential, commercial, mixed-use, and state-owned facilities, as well as schools and hospitals. Cal Green Code is comprised of Mandatory Residential and Nonresidential Measures and more stringent Voluntary Measures (TIERs 1 and 2).

Mandatory Measures are required to be implemented on all new construction projects and are composed of a wide array of green measures concerning project site design, water use reduction, improvement of indoor air quality, and conservation of materials and resources. The Cal Green Building Code refers to Title 24, Part 6 compliance with respect to energy efficiency; however, it encourages 15 percent energy use reduction over that required in Part 6. Voluntary measures are optional, more stringent measures to be used by jurisdictions that strive to enhance their commitment towards green and sustainable design and achievement of AB 32 goals. Under Tiers 1 and 2, all new construction projects are required to reduce energy consumption by 15 percent and 30 percent, respectively, below the baseline required under the CEC, as well as implement more stringent green measures than those required by mandatory code.

Local Policies and Regulations.

City of Banning General Plan. There are no goals, policies, or programs related to GCC included in the City of Banning General Plan.

[1] ARB. 2007. Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California Recommended for Board Consideration. October.

[2] ARB. 2007. "ARB approves tripling of early action measures required under AB 32." News Release 07-46. http://www.arb.ca.gov/newsrel/nr102507.htm. October 25.

4.3.3 Methodology

Currently, neither the CEQA statutes, OPR guidelines, nor the CEQA Guidelines prescribe specific quantitative thresholds of significance or a particular methodology for performing an impact analysis. Significance criteria are left to the judgment and discretion of the Lead Agency. The discussion below provides an overview of the regulatory considerations and methodological approach for this EIR.

In June 2008, OPR issued a Technical Advisory titled "CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review." The recommended approach for GHG analysis included in the Governor's OPR June 2008 Technical Advisory (TA) is to: (1) identify and quantify GHG emissions, (2) assess the significance of the impact on GCC (GCC), and (3) if significant, identify alternatives and/or mitigation measures to reduce the impact below significance.[1] The June 2008 Office of Planning and Research (OPR) guidance provides some additional direction regarding planning documents as follows: "CEQA can be a more effective tool for GHG emissions analysis and mitigation if it is supported and supplemented by sound development policies and practices that will reduce GHG emissions on a broad planning scale and that can provide the basis for a programmatic approach to project-specific CEQA analysis and mitigation. For local government Lead Agencies, adoption of General Plan policies and certification of General Plan EIRs that analyze broad jurisdiction-wide impacts of GHG emissions can be part of an effective strategy for addressing cumulative impacts and for streamlining later project-specific CEQA reviews."

The ARB released a preliminary draft staff proposal in October 2008 that included initial suggestions for significance criteria related to industrial, commercial, and residential projects. Although the ARB anticipated adopting the significance criteria in 2009 to allow coordination with OPR's efforts on GCC, no formal announcement of adoption has been made.[2] Currently, it appears that the ARB is deferring action on the adoption of final thresholds.

AB 32 does not prohibit all new GHG emissions; rather, it requires a reduction in statewide emissions to a given level. Thus, AB 32 recognizes that GHG emissions will continue to occur and that increases will result from certain activities, but that emissions reductions must be achieved overall. Moreover, if all economic development were to cease, the State would very likely be unable to fund the very measures that are needed to combat GCC.

For the purpose of this technical analysis, the concept of CO_2e is used to describe how much global warming a given type and amount of GHG may cause, using the functionally equivalent amount or concentration of CO_2 as the reference. Individual GHGs have varying global warming potentials and atmospheric lifetimes. The CO_2e is a consistent methodology for comparing GHG emissions since it normalizes various GHGs to the same metric. The reference gas is CO_2, which has a global warming potential equal to 1.

The analysis included in this report is the result of a thorough investigation of the proposed project's impact on GCC, including a review of EO S-3-05, AB 32, and the legislative intent behind AB 32, as

[1] State of California, 2008. Governor's Office of Planning and Research. CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act Review. June 19.

[2] California, State of, 2008. ARB. Preliminary Draft Staff Proposal: Recommended Approaches for Setting Interim Thresholds for Greenhouse Gases Under the California Environmental Quality Act. October 24.

well as an extensive review of scientific literature regarding GCC. Every effort will be made to maximize the disclosure of information to the public, fairly present the project's potential for significant adverse effects on GCC, and identify techniques to minimize any such effects, in light of the fact that there are no generally accepted or adopted numeric standards for GHG emissions.

On June 19, 2008, the Governor's OPR issued a memorandum titled "CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act Review" (the Memorandum). The Memorandum is intended to provide professional planners, land use officials, and CEQA practitioners with guidance on how to approach GCC analysis and GHG emissions in an EIR, pending OPR's adoption of amendments to the CEQA Guidelines that address the topic. OPR will develop, certify, and adopt amendments to the CEQA Guidelines that address GCC on or before January 1, 2010, pursuant to SB 97 (Dutton 2007).

Even in the absence of clearly defined thresholds for GHG emissions, the law requires that such emissions from CEQA projects be disclosed and mitigated to the extent feasible whenever the Lead Agency determines that a project contributes to a significant cumulative GCC impact. Until OPR establishes thresholds of significance for GHG emissions, it recommends approaching a GCC analysis as follows:

1. Identify and quantify the GHG emissions of the project;
2. Assess the significance of the impact on GCC; and
3. If impacts are found to be significant, identify alternatives and/or mitigation measures that will reduce impacts below a level of significance.

When assessing a project's GHG emissions, Lead Agencies must describe the existing environmental conditions or setting without the project and determine what constitutes a significant impact "consistent with available evidence and current CEQA practice."

Not every project that emits GHGs will necessarily contribute to a significant cumulative impact on the environment. If it is determined a project will contribute to a significant GHG impact, mitigation should be implemented.

The Air Quality Analysis (Appendix C) identified and quantified the GHG emissions of the proposed project. Moreover, it assesses the project's potential to result in a significant GHG impact by determining its consistency with strategies identified in the March 2006 CAT Report to the Governor. The CAT Report is cited by the OPR Technical Advisory Memorandum as a reference and/or information source for Lead Agencies determining what constitutes a significant impact. Accordingly, this method of determining significance is consistent with recent OPR recommendations.

As described above and in consistency with OPR recommendations, the methodology used in this EIR to analyze the project's potential effect on global warming includes a calculation of GHG emissions. The purpose of calculating the emissions is for information purposes, as there is no quantifiable emissions threshold.

4.3.4 Thresholds of Significance

The criteria given in the Initial Study (IS) checklist in Appendix G of the State CEQA Guidelines were used to evaluate potentially significant impacts on climate change that could occur as a result of project implementation. The proposed project would result in significant impact related to climate change if it would:

- Generate greenhouse gas emissions either directly or indirectly that may have a significant impact on the environment?
- Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

4.3.5 Impacts and Mitigation

Less Than Significant Impacts.

Threshold: Would the project generate greenhouse gas emissions either directly or indirectly that may have a significant impact on the environment?

Threshold: Would the project conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

The proposed project would include the following discretionary approvals: (1) a General Plan Amendment (GPA) to change the LOS from LOS C to LOS D; and (2) an update to Exhibit III-6 in the Circulation Element to replace the planned future Highland Home Road/I-10 future interchange and with an overcrossing to be consistent with the County's General Plan Circulation Element; and (3) update the text in the Circulation Element of the General Plan. The project does not include construction activities because the project is a policy change to the Circulation Element in the City's General Plan. As the project does not include construction activities, no release of GHG emissions would occur due to construction activities.

Mobile sources (vehicle trips and associated miles traveled) are the largest source of GHG emissions in California. The proposed project would not generate new vehicular traffic trips since it is not a development project and would not construct new homes or businesses. However, there is a possibility that the proposed project would affect the traffic flow within the City, thus resulting in an increase in delay and Vehicle Miles Traveled (VMT). VMT is the most direct indicator of CO_2 emissions from the proposed project, and associated CO_2 emissions function as the best indicator of total GHG emissions. The impact of GHG emissions is a global rather than a local issue. However, due to lack of global models for project-level analyses, the impact of the project on GHG emissions was calculated using traffic data for the project region.

The traffic data listed in Table 4.3-B, in conjunction with the EMFAC2007 emission model, was used to calculate the regional CO_2 emissions listed in Table 4.3-C. Although EMFAC2011 is now available, the model does not provide fleet wide emission rates that include autos, light trucks, and

heavy duty trucks. In addition, the SCAQMD's website still lists EMFAC2007 as an approved model.[1] Therefore, EMFAC2007 was used for the analysis for the proposed project.

The increase in a.m. peak hour vehicle miles traveled (VMT) as shown in Table 4.3-B was calculated using peak hour turning movements at intersections within the vicinity of the future planned Highland Home Road interchange. The increase in the a.m. trip length is due to the change in the traffic flow that would result from the changing the planned intersection into an overcrossing. Vehicles that would use Highland Home Avenue to access Interstate 10 (I-10) would be required to travel further to use Highland Springs Avenue or Sunset Avenue. Vehicles on Interstate 10 (I-10) would also be required to travel further to use Highland Springs Avenue or Sunset Avenue.

Table 4.3-B: Regional Vehicle Miles Traveled (VMT)

Scenario	AM	PM	Total
Existing General Plan	18,095	36,714	**54,809**
General Plan Amendment – LOS D and Highland Home Road Overcrossing	19,345	35,235	**54,581**

Source: LSA Associates, Inc., September 2012.

Table 4.3-C: Long-Term Regional Greenhouse Gas Emissions

Source	CO_2 Emissions (lbs/day)
Existing General Plan	56,643
General Plan Amendment – Highland Home Road Overcrossing	56,406
Increase in Emissions	**-237**

Source: LSA Associates, Inc., September 2012.
CO_2 = carbon dioxide
lbs/day = pounds per day

The numbers are not necessarily an accurate reflection of what the true CO_2 emissions will be because CO_2 emissions are dependent on other factors that are not part of the model, such as the fuel mix (EMFAC model emission rates are only for direct engine-out CO_2 emissions, not full fuel cycle; fuel cycle emission rates can vary dramatically depending on the amount of additives like ethanol and the source of the fuel components), rate of acceleration, and the aerodynamics and efficiency of the vehicles. However, for comparison purposes, these two sets of emissions were calculated using the same approach, and would provide the difference between the existing General Plan conditions and the proposed project. As shown in Table 4.3-C, the proposed project would result in small decreases (less than 1 percent) in CO_2 emissions within the region when compared to the existing General Plan conditions. Therefore, the proposed project would not contribute substantially to regional greenhouse gas emissions. Because the proposed project would not increase GHG emissions, it would not conflict with any applicable plan, policy, or regulation of any agency adopted for the purpose of reducing

[1] http://www.aqmd.gov/ceqa/handbook/onroad/onroad.html.

emissions of greenhouse gas. As a result, impacts to GCC as a result of the proposed project are considered less than significant and no mitigation measures are required.

Mitigation Measures. The proposed project would result in less than significant GCC impacts and no mitigation measures are required.

4.3.6 Cumulative Impacts

As defined in Section 15130 of the CEQA Guidelines, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects. As described above, project-related GHG emissions are not confined to a particular air basin but are dispersed worldwide. Therefore, project-related GHG emissions are not project-specific impacts to global warming but the project's contribution to this cumulative impact. The project's incremental contribution to GCC would be considered cumulatively significant if, due to the size or nature of the proposed project, it would generate a substantial increase in GHG emissions relative to existing conditions. As stated above, the project would result in small decreases (less than 1 percent) in CO_2 emissions within the region when compared to the existing General Plan conditions. Therefore, the project-related CO_2e emissions and their contribution to GCC impacts in the State of California are considered less than cumulatively considerable.

4.3.7 Level of Significance After Mitigation

Impacts resulting from GHG emissions as a result of project implementation would be considered less than significant.

4.4 LAND USE AND PLANNING

Introduction

The purpose of this section is to analyze the potential project impacts related to land use and evaluate the compatibility of the proposed project with surrounding land use and relevant policy and planning documents. The consistency analysis in this section was prepared in compliance with State of California Environmental Quality Act (CEQA) Guidelines Section 15125(d). Information and analysis in this section are based mainly on the City of Banning (City) General Plan, Land Use Element, and Circulation Element (January 2006).

4.4.1 Existing Environmental Setting

General land use patterns in the City consist of light industrial and commercial land uses on the north and south sides of Interstate 10 (I-10), residential land uses farther north and south of I-10, and largely vacant and undeveloped land in the northern limits portion of the City, primarily due to its location within the San Bernardino National Forest (refer to Figure 3.2).

Existing land uses adjacent to I-10 within the City generally consist of commercial and light industrial. Land uses in the immediate vicinity of the I-10/Highland Home Road overcrossing generally consist of vacant land and residential land uses, with some commercial uses to the north of the I-10.

Existing land uses within the project study area consist primarily of residential land uses, with additional uses that include vacant, commercial, institutional, recreational, and light industrial land uses.

4.4.2 Regulatory Setting

Federal Policies and Regulations. There are no federal land use policies or regulations that are applicable to the proposed project with respect to land use regulation.

State Policies and Regulations. There are no State land use policies or regulations that are applicable to the proposed project with respect to land use regulation.

Local and Regional Policies and Regulations.

Southern California Association of Governments. The Southern California Association of Governments (SCAG) is the largest of nearly 700 councils of government in the United States. It functions as the Metropolitan Planning Organization (MPO) for six counties: Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. The region encompasses a population exceeding 19 million persons in an area of more than 38,000 square miles. As the designated MPO, SCAG is mandated by the Federal government to research and draw up plans for transportation, growth management, hazardous waste management, and air quality. Additional mandates exist at the State level. SCAG is responsible for the maintenance of a continuous,

comprehensive, and coordinated planning process. SCAG is also responsible for the development of demographic projections, as well as the development of integrated land use, housing, employment, transportation programs, and measures.

SCAG Regional Transportation Plan (2008 RTP). The 2012 Regional Transportation Plan (RTP) has been adopted by SCAG and is expected to be determined as conforming by the Federal Highway Administration (FHWA) and the Federal Transportation Administration (FTA) by June 2012. However, the current conforming RTP adopted by SCAG remains the 2008 RTP. On May 8, 2008, SCAG adopted its 2008 Regional Transportation Plan (RTP). The 2008 RTP presents the transportation vision for the SCAG region through the year 2035 and provides a long-term investment framework for addressing the region's transportation and related challenges. The RTP focuses on maintaining and improving the transportation system through a balanced approach and considers system preservation, operation, and management; improved coordination between land-use decisions and transportation investments; and, strategic expansion of the system to accommodate future growth.

Riverside County General Plan. Adopted in 2003, the Riverside County General Plan sets the direction for land use and development in unincorporated areas of the County. The County's General Plan Circulation Element designates Highland Home Road as an overcrossing at the I-10 (Figure C-1, Riverside County Circulation Plan). Although the incorporated City is not under the County's jurisdiction as it relates to land use, the following County General Plan Circulation Element policy is relevant to the proposed Banning GPA project.

Circulation Element Policy

- **C 2.1:** Maintain the following countywide target Levels of Service:

  LOS "C" along all County maintained roads and conventional state highways. As an exception, LOS "D" may be allowed in Community Development areas, only at intersections of any combination of Secondary Highways, Major Highways, Urban Highways, Expressways, conventional state highways or freeway ramp intersections.

  LOS"E" may be allowed in designated community centers to the extent that it would support transit-oriented development and walkable communities.

Per the County General Plan, the City is included in a Community Development area; thus, for consistency purposes, the applicable County LOS standard within the City would be LOS D. Approval of the LOS D standard would make the City's policy consistent with the County's LOS criteria.

City of Banning General Plan. The City of Banning General Plan contains the City's development goals, objectives, and policies. The City's General Plan is implemented through the decisions made by the City's Planning designations, discusses strategies for future development, and includes Goals, Policies, and Programs. The General Plan was updated and adopted in 2006 and contains 21 elements.

Goals, policies, and programs from the Circulation, Cultural and Archaeological Resources, Air Quality, and Noise Elements relevant to the proposed project are discussed below.

Circulation Element. The Circulation Element addresses the movement of people and goods via automobiles, transit, bicycles, and other modes. It addresses key issues such as trip reduction; parking, bicycle, pedestrian, and equestrian access; traffic flow; transportation improvements and funding; traffic safety; and enhancement of public water transportation services.

Goals, policies, and programs from the Circulation Element relevant to the proposed project are discussed below.

Goal: A safe and efficient transportation system.

Policy 1: The City's Recommended General Plan Street System shall be strictly implemented.

Policy 4: Proactively participate in regional transportation planning.

Program 4.A: Maintain active relationships with the City of Beaumont, the County of Riverside, the Western Riverside County Council of Governments, the California Department of Transportation, and the Morongo Band of Mission Indians to share information and promote comprehensive transportation planning in the region.

Program 4.C: Aggressively pursue the design and development of interchanges at Highland Home Road and Cottonwood Road (North - South), including all sources of funding, and the coordination of I-10 widening with their installation.

Policy 5: Consider amendments to the Highland Home/Highland Springs/18th Street/Brookside street configurations based on public safety, design feasibility, and area needs.

Policy 6: The City shall maintain peak hour Level of Service C or better on all local intersections, except those on Ramsey Street and at I-10 interchanges, where Level of Service D or better shall be maintained.

Program 6.A: Periodically review current traffic volumes and the actual pattern of development to coordinate, program and, as necessary, revise road improvements.

Cultural and Archaeological Resources Element.

Goal: Documentation, maintenance, preservation, conservation, and enhancement of archaeological and historic sites, artifacts, traditions and other elements of the City's cultural heritage.

Policy 1: The City shall exercise its responsibility to identify, document, and evaluate archaeological, historical, and cultural resources that may be affected by proposed development projects and other activities.

Program 1.C: The City shall implement the requirements of state law relating to cultural resources, including Government Code 65352.3, and any subsequent amendments or additions.

Air Quality Element.

Goal: To preserve and enhance local and regional air quality for the protection of the health and welfare of the community.

Policy 2: The City shall continue to coordinate and cooperate with local, regional, and federal efforts to monitor, manage, and reduce the levels of major pollutants affecting the City and region, with particular emphasis on PM_{10} and ozone emissions, as well as other emissions associated with diesel-fueled equipment and motor vehicles.

Noise Element.

Goal: A noise environment that complements the community's residential character and its land uses.

Policy 2: The relationship between land use designations in the Land Use Element and changes in the circulation pattern of the City, as well as individual developments, shall be monitored and mitigated.

Policy 4: The City shall maintain a General Plan Circulation Map and assure low levels of traffic within neighborhoods by assigning truck routes to major roadways only.

4.4.3 Methodology

The impact analysis of this section considers the implementation of the proposed project and its impact to land use compatibility. The impact analysis also discusses any potential inconsistencies of the proposed development with the City's planning documents and land use policies.

The consistency analysis presented in this section was prepared in compliance with State CEQA Guidelines Section 15125(d). The purpose of the required analysis is to identify potential inconsistencies between the proposed project and the City's adopted General Plan. Neither CEQA nor the State CEQA Guidelines set forth standards for determining when a project is inconsistent with an applicable plan, but the final determination that a project is consistent or inconsistent with an applicable plan should be made by the Lead Agency when it acts on the project. Using the methodology described below, the analysis in this EIR presents the findings of policy review and is intended to provide a guide to the decision-makers for policy interpretation.

A project's inconsistency with a policy is only considered significant if such inconsistency would cause significant physical environmental impacts (per State CEQA Guidelines Section 15382). This EIR section determines whether any project inconsistencies with public land use policies and documents would be significant and whether mitigation is feasible. Under this approach, a policy conflict is not in and of itself considered to be a significant environmental impact. An inconsistency between a proposed project and an applicable plan is a legal determination that may or may not indicate the likelihood of environmental impact. The consistency analysis must determine whether there is an underlying physical impact and whether or not it is significant and adverse.

4.4.4 Thresholds of Significance

The criteria given in the Initial Study (IS) checklist in Appendix G of the State CEQA Guidelines were used to evaluate potentially significant impacts on land use and planning that could occur as a result of project implementation. The project would result in significant impact related to land use and planning if it would:

- Physically divide an established community?
- 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 or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?
- Conflict with any applicable habitat conservation plan or natural community conservation plan?

The proposed project is a policy change in regard to the City's adopted LOS and the replacement of the future designated I-10/Highland Home Road interchange with an overcrossing. The IS prepared by the City (Appendix A) determined that the project is not located in a Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP) area. Therefore, no impacts to an NCCP/HCP would occur as a result of the proposed project, and this topic will not be reviewed further in this EIR.

The GPA area surrounding the proposed future designated interchange at Highland Home Road is currently developed with established communities on either side of the I-10 freeway, along with some vacant land. Implementation of the proposed project would include approval of policy changes related to the acceptable roadway LOS and replacement of the future designated I-10/Highland Home Road interchange with an overcrossing. The GPA would not divide an established community; therefore, this topic will not be reviewed further in this EIR.

4.4.5 Impacts and Mitigation

Less Than Significant Impacts.

Threshold: 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 or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

The proposed project would include the following discretionary approvals: (1) a GPA to change the LOS from LOS C to LOS D; (2) an update to Exhibit III-6 in the Circulation Element to replace the planned future Highland Home Road/I-10 future interchange and with an overcrossing to be consistent with the County's General Plan Circulation Element; and (3) an update to the text in the Circulation Element of the General Plan. A consistency discussion of the proposed project with the applicable goals, policies, and programs identified in the City of Banning General Plan is contained in Table 4.4-A. As described in Table 4.4-A, with approval of the GPA, the project is consistent with the applicable goals, policies and programs in the City's General Plan, specifically, with revisions made to Program 4.C and Policies 5 and 6.

Mitigation Measures. Land use impacts are considered less than significant, and no mitigation measures are required.

4.4.6 Cumulative Impacts

As defined in Section 15130 of the CEQA Guidelines, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects within the cumulative impact area for land use. The cumulative impact area for land use for this project would be the City, which is the same impact area as the proposed project.

The proposed project includes a change to the acceptable LOS for roadway operating conditions from LOS C to LOS D and the replacement of the future designated interchange improvement with an overcrossing at the I-10/Highland Home Road location as identified in the Proposed General Plan Street System (Exhibit III-6 in the Circulation Element). The proposed project is an amendment to the General Plan for conditions under the General Plan Buildout Scenario. No changes to land uses are proposed as part of the project. The GPA land use analysis included is for buildout conditions of the City as identified in the General Plan. Therefore, the analysis contained throughout this section was a cumulative analysis that considered the effects of all current and probable future projects as identified in the City's General Plan. No significant land use impacts were identified, and no mitigation is required. With project approval and adoption of the GPA, the project would be consistent with all land use plans and policies and would not contribute to cumulative land use and planning impacts.

4.4.7 Level of Significance After Mitigation

No mitigation is required; impacts to land use as a result of project implementation would be less than significant.

Table 4.4-A: General Plan Policy Consistency Analysis

City of Banning General Plan Goals and Policies		Consistency Analysis
Circulation Element		
Goal:	A safe and efficient transportation system.	**Consistent.** The proposed project is a policy change amending the acceptable roadway operating conditions from level of service (LOS) C to LOS D and replacement of the future I-10/Highland Home interchange with an overcrossing. Based on the intersection LOS analysis included in the Traffic Impact Study (Environmental Impact Report [EIR], Appendix B), all intersections would operate at acceptable LOS during both peak hours. Therefore, with approval of the General Plan Amendment (GPA), the proposed project would be consistent with providing a safe and efficient transportation system.
Policy 1:	The City's Recommended General Plan Street System shall be strictly implemented.	**Consistent.** With approval of the GPA, including revisions to the City of Banning's (City) Proposed General Plan Street System (Exhibit III-6 in the Circulation Element), the proposed project would be consistent with the City's approved General Plan Street System.
Policy 4:	Proactively participate in regional transportation planning.	**Consistent.** Per the County of Riverside (County) General Plan, the City is included in a Community Development area. The County's General Plan indicates that LOS D is the acceptable condition in Community Development areas. Therefore, approval of the proposed LOS D criteria would make the City's policy consistent with the County's LOS criteria. In addition, the County's General Plan Circulation Element designates Highland Home Road as an overcrossing at the I-10. The proposed project would, therefore, be consistent with the County's LOS criteria and planned improvements at the I-10/Highland Home Road location. The project is, therefore, deemed consistent with this policy regarding regional transportation planning.
Program 4.A:	Maintain active relationships with the City of Beaumont, the County of Riverside, the Western Riverside County Council of Governments, the California Department of Transportation, and the Morongo Band of Mission Indians to share information and promote comprehensive transportation planning in the region.	**Consistent.** The Initial Study/Notice of Preparation (IS/NOP) was made available and the Draft EIR will be made available to federal, State, regional, and local agencies, as well as the general public. In addition, as part of the Senate Bill (SB) 18 requirements, Native American Consultation was conducted with the Native American Heritage Commission (NAHC) and local tribes, including the Morongo Band of Mission Indians. Therefore, the City has made efforts to maintain active relationships with the City of Beaumont, County of Riverside, the Western Riverside County of Governments, the California Department of Transportation, and the Morongo Band of Mission Indians, consistent with this program objective. See also the consistency analysis for Policy 4, above.
Program 4.C:	Aggressively pursue the design and development of interchanges at Highland Home Road and Cottonwood Road (North - South), including all sources of funding, and the coordination of I-10 widening with their installation.	**Consistent.** Once revisions to policies are approved and the City's General Plan is amended, the proposed project would be consistent with Program 4.C. As part of the proposed project the City's General Plan would be amended to replace the I-10/Highland Home Road interchange with an overcrossing. Based on the Feasibility Study for Highland Home Road/I-10 New Interchange (LAN Engineering, February 2008), the construction of this interchange is not feasible. Therefore, the City has actively pursued the design and development at this location, but has determined that the future interchange design and funding are not feasible. Consequently, its planning efforts can be considered consistent with the intent of Program 4.C.

Table 4.4-A: General Plan Policy Consistency Analysis

City of Banning General Plan Goals and Policies		Consistency Analysis
Policy 5	Consider amendments to the Highland Home/Highland Springs/18th Street/Brookside street configurations based on public safety, design feasibility, and area needs.	**Consistent.** Once revisions to policies are approved and the City's General Plan is amended, the proposed project would be consistent with Policy 5. As part of the proposed project the City's General Plan would be amended to replace the I-10/Highland Home Road interchange with an overcrossing. Based on the Feasibility Study for Highland Home Road/I-10 New Interchange (LAN Engineering, February 2008), the construction of this interchange is not feasible. Therefore, the City has actively pursued the design and development at this location, but has determined that the future interchange design and funding are not feasible. Consequently, its planning efforts can be considered consistent with the intent of Policy 5.
Policy 6	The City shall maintain peak hour Level of Service C or better on all local intersections, except those on Ramsey Street and at I-10 interchanges, where Level of Service D or better shall be maintained.	**Consistent.** As part of the proposed project, the City's General Plan would be amended to include a revision to this Policy 6 so that LOS D would be allowed as the acceptable peak-hour LOS. Therefore, once revisions to policies are approved and the City's General Plan is amended, the proposed project would be consistent with Policy 6.
Program 6.A	Periodically review current traffic volumes and the actual pattern of development to coordinate, program and, as necessary, revise road improvements.	**Consistent.** The EIR analyzed existing and future build-out traffic volumes when considering the potential impacts of the proposed GPA. The Traffic Impact Studies (EIR, Appendix B) concluded that replacing the Highland Home Road interchange with an overcrossing and amending the acceptable LOS at interchanges within the City from LOS C to LOS D would not cause a substantial delay or change in traffic circulation. Therefore, with approval of the GPA, the revised road improvements included in the proposed project are considered consistent with Program 6.A.
Cultural and Archaeological Resources Element		
Goal:	Documentation, maintenance, preservation, conservation, and enhancement of archaeological and historic sites, artifacts, traditions, and other elements of the City's cultural heritage.	**Consistent.** As part of the SB 18 requirements, Native American Consultation was conducted with the NAHC and local tribes. The consultation efforts are intended to provide California Native American tribes an opportunity to participate in local land use decisions for the purpose of protecting, or mitigating impacts to, cultural resources. None of the responses indicated any specific concerns regarding cultural resources. The proposed project would consist of a policy change, and would not physically impact known archaeological, cultural, or historic resources. Therefore, the proposed project is considered consistent with this goal.
Policy 1:	The City shall exercise its responsibility to identify, document, and evaluate archaeological, historical, and cultural resources that may be affected by proposed development projects and other activities.	**Consistent.** This EIR has been prepared in accordance with the California Environmental Quality Act (CEQA) Guidelines to disclose any environmental effects of the proposed project. The proposed project is a policy change that would not physically impact known archaeological, cultural, or historic resources. Section 4.2 specifically addresses the project's potential impact to cultural resources. In addition, Native American Consultation was conducted in order to identify, document, and evaluate any such resources. The City has, therefore, exercised its responsibility related to the evaluation of cultural resources, consistent with this policy.

Table 4.4-A: General Plan Policy Consistency Analysis

City of Banning General Plan Goals and Policies		Consistency Analysis
Program 1.C:	The City shall implement the requirements of state law relating to cultural resources, including Government Code 65352.3, and any subsequent amendments or additions.	**Consistent.** In compliance with CEQA, SB 18 and Government Code 65352.3, Native American consultation with NAHC was conducted for the proposed project. The results provided in a letter from NAHC indicated an absence of Native American cultural resources within the project study area. As part of the proposed project, representatives from the Ramona Band of Cahuilla Mission Indians, the Serrano Nation of Indians, the Santa Rosa Band of Mission Indians, the Cahuilla Band of Indians, and the Morongo Band of Mission Indians were also contacted for consultation purposes (see EIR Section 4.2, Cultural Resources). Therefore, the proposed project is considered consistent with this program.
Air Quality Element		
Goal:	To preserve and enhance local and regional air quality for the protection of the health and welfare of the community.	**Consistent.** The Air Quality Analysis (EIR, Appendix C) conducted for the proposed project determined that there are no short-term or long-term impacts to air quality as a result of the proposed project. Therefore, regional and local air quality would be preserved with the implementation of the proposed project, consistent with this goal.
Policy 2:	The City shall continue to coordinate and cooperate with local, regional, and federal efforts to monitor, manage, and reduce the levels of major pollutants affecting the City and region, with particular emphasis on PM_{10} and ozone emissions, as well as other emissions associated with diesel-fueled equipment and motor vehicles.	**Consistent.** An air quality analysis was conducted to determine the potential air quality impacts that would occur as a result of the proposed project. The air quality analysis incorporated the evaluation of local, regional, and federal efforts to monitor, manage and reduce levels of major pollutants affecting the City and region, including the analysis of particulate matter less than 10 microns in diameter (PM_{10}) and ozone emissions. Impacts related to air quality were analyzed for the proposed project and determined to be less than significant. The project is, therefore, considered to be consistent with this policy.
Noise Element		
Goal:	A noise environment that complements the community's residential character and its land uses.	**Consistent.** A Noise Impact Analysis was prepared for the proposed project (EIR, Appendix D). The proposed project does not include construction activities, and no noise impacts from construction activities would occur. The Noise Impact Analysis determined that the project-related long-term noise level increases are small and not perceptible by the human ear. Therefore, noise impacts to adjacent land uses are less than significant and are consistent with this goal.
Policy 2:	The relationship between land use designations in the Land Use Element and changes in the circulation pattern of the City, as well as individual developments, shall be monitored and mitigated.	**Consistent.** The project is a GPA that includes a change to the acceptable LOS for roadway operating conditions from LOS C to LOS D. Additionally, the project includes replacing the designated interchange improvement at I-10/Highland Home Road with an overcrossing. Land uses will not change as part of this proposed project, and no significant changes would occur to the existing General Plan build-out circulation pattern of the City. Therefore, the project is considered consistent with this policy.

Table 4.4-A: General Plan Policy Consistency Analysis

City of Banning General Plan Goals and Policies		Consistency Analysis
Policy 4:	The City shall maintain a General Plan Circulation Map and assure low levels of traffic within neighborhoods by assigning truck routes to major roadways only.	**Consistent.** No changes to truck routes are proposed by the project. With approval of the GPA and approval of the project's updates to Exhibit III-6 in the Circulation Element, the proposed project would be consistent with the General Plan Circulation Map and consistent with this policy.

4.5 NOISE

Introduction

This section of the Environmental Impact Report (EIR) evaluates the potential noise impacts associated with the City of Banning (City) Circulation Element General Plan Amendment (project). The analysis in this section is based on information provided in the Noise Impact Analysis (LSA Associates Inc., April 2012). The Noise Impact Analysis is included in Appendix D of this EIR.

4.5.1 Existing Environmental Setting

The project is a General Plan Amendment (GPA) that would be implemented for the entire City; it specifically includes Interstate 10 (I-10) and roadway networks that connect the City to the western and eastern portions of Riverside County. The City is proposing to amend the General Plan Circulation Element. The proposed GPA includes a change to the acceptable level of service (LOS) for roadway operating conditions from LOS C to LOS D. Additionally, the City is proposing to replace the designated interchange improvement with an overcrossing at the I-10/Highland Home Road in the Proposed General Plan Street System identified in Exhibit III-6 in the Circulation Element and shown in Figure 3.3 of this EIR.

Eight study area intersections could be potentially impacted by the LOS policy change, and 16 study area intersections could be potentially impacted by the replacement of the I-10/Highland Home Road with an overcrossing. The change in LOS from C to D would not change the long-term a.m. or p.m. peak hour turning movements and would have no long-term effect on the roadway traffic noise levels. Therefore, the noise levels were modeled based on the 16 intersections that were evaluated in the traffic study that evaluated the replacement of the Highland Home Interchange with an overcrossing. Sensitive land uses (residential) exist at a majority of the affected study area intersections. The primary source of noise in the study area is from the traffic traveling along eastbound and westbound I-10.

Table 4.5-A identifies the traffic noise levels that are anticipated if the I-10/Highland Home Road interchange were to be constructed. The traffic noise levels identified in Table 4.5-A identify noise levels that would occur under the existing environmental setting since the construction of the future planned I-10/Highland Home Road interchange is included in the existing approved General Plan (GP) Circulation Element. Table 4.5-A lists the future traffic noise levels under the existing GP conditions. This is the baseline condition; therefore, no noise impacts were assessed.

4.5.2 Regulatory Setting

City of Banning General Plan Noise Element. The Noise Element of the City General Plan contains noise standards to prevent the degradation of the noise environment from land use intensification and to minimize the adverse effects of currently existing noise sources, particularly from vehicular traffic in the City. The exterior noise standard for sensitive land uses, such as residences, schools, hotels, motels, churches, and hospitals, is 65 dBA CNEL. Applicable goals and policies from the City's General Plan Noise Element are as follows:

Table 4.5-A: Existing General Plan Traffic Noise Levels

Roadway Segment	ADT	Centerline to 70 CNEL (ft)	Centerline to 65 CNEL (ft)	Centerline to 60 CNEL (ft)	CNEL (dBA) 50 ft from Outermost Lane
Wilson Street West of Highland Springs Avenue	19,700	59	119	252	68.3
Wilson Street Between Highland Springs Avenue and Highland Home Road	31,000	77	160	341	70.3
Wilson Street Between Highland Home Road and Sunset Avenue	35,000	83	173	369	70.8
Wilson Street East of Sunset Avenue	25,700	69	141	301	69.5
6th Street West of Highland Springs Avenue	27,100	71	146	311	69.7
Ramsey Street Between Highland Springs Avenue and Highland Home Road	29,200	74	153	327	70.0
Ramsey Street Between Highland Home Road and Sunset Avenue	28,400	73	151	321	69.9
Ramsey Street East of Sunset Avenue	26,100	70	143	304	69.5
1st Street West of Highland Springs Avenue	26,600	70	144	308	69.6
Sun Lakes Boulevard Between Highland Springs Avenue and Highland Home Road	29,800	75	155	332	70.1
Westward Avenue Between Highland Home Road and Sunset Avenue	14,200	< 50	78	167	66.6
Westward Avenue East of Sunset Avenue	1,400	< 50	< 50	< 50	56.5
Highland Springs Avenue North of Wilson Street	31,400	78	161	343	70.3
Highland Springs Avenue Between Wilson Street and Ramsey Street	30,700	77	159	338	70.3
Highland Springs Avenue Between Ramsey Street and I-10	37,100	86	179	384	71.1
Highland Springs Avenue Between I-10 and Sun Lake Boulevard	31,100	77	160	341	70.3
Highland Springs Avenue South of Sun Lake Boulevard	27,900	72	149	318	69.8
Highland Home Road North of Wilson Street	30,600	76	158	338	70.2
Highland Home Road Between Wilson Street and Ramsey Street	28,200	73	150	320	69.9
Highland Home Road Between Ramsey Street and I-10	34,100	82	170	363	70.7
Highland Home Road Between I-10 and Sun Lake Boulevard	12,900	< 50	91	191	66.5
Highland Home Road South of Sun Lake Boulevard	7,000	< 50	63	128	63.8
Sunset Avenue North of Wilson Street	22,600	< 50	107	227	68.1
Sunset Avenue Between Wilson Street and Ramsey Street	24,500	55	112	240	68.4
Sunset Avenue Between Ramsey Street and I-10	35,500	68	143	307	70.0
Sunset Avenue Between I-10 and Lincoln Street	22,200	< 50	105	225	68.0
Sunset Avenue Between Lincoln Street and Westward Avenue	7,900	< 50	55	114	63.5
Sunset Avenue South of Westward Avenue	5,900	< 50	< 50	94	62.2

Source: LSA Associates, Inc., April 2012.
ADT = average daily trips
CNEL = Community Noise Equivalent Level
dBA = A-weighted decibel
ft = feet, foot
I-10 = Interstate 10

Goal A noise environment that complements the community's residential character and its land uses.

Policy 2 The relationship between land use designations in the Land Use Element and changes in the circulation pattern of the City, as well as individual developments, shall be monitored and mitigated.

Policy 4 The City shall maintain a General Plan Circulation Map and assure low levels of traffic within neighborhoods by assigning truck routes to major roadways only.

Municipal Code. Section 8.44 of the City Noise Ordinance lists the noise ordinance limits. Exterior noise levels from stationary sources are not permitted to exceed the levels listed in Table 4.5-B, plus the following limits:

- Basic noise level for a cumulative period of not more than 30 minutes in any 1 hour (L_{50}); or
  - Basic noise level plus 5 dBA for a cumulative period of not more than 15 minutes in any 1 hour (L_{25}); or
  - Basic noise level plus 10 dBA for a cumulative period of not more than 5 minutes in any 1 hour (L_8); or
  - Basic noise level plus 15 dBA for a cumulative period of not more than 1 minute in any 1 hour (L_2); or
  - Basic noise level plus 20 dBA for any period of time (L_{max}).

Table 4.5-B: Exterior Noise Limits (dBA)

Land Use	Time	Limit
Residential	10:00 p.m. to 7:00 a.m.	45
	7:00 a.m. to 10:00 p.m.	55
Industrial and Commercial	Anytime	75

Source: City of Banning, 2007.

Construction activities are permitted to exceed the permitted noise levels between the hours of 7:00 a.m. and 6:00 p.m.

4.5.3 Methodology

Evaluation of noise impacts associated with a proposed project typically includes the following:

- Determine the noise impacts associated with short-term construction and long-term operation of the proposed project on adjacent uses.

- Determine the long-term traffic and land use noise impacts to on-site noise-sensitive uses.
- Determine the required mitigation measures to reduce short-term and long-term noise impacts.

This noise impact analysis utilizes the City's noise standards, including the City's Noise Element and Municipal Code, as thresholds against which potential noise impacts are evaluated.

Characteristics of Sound. Sound is increasing in the environment and can affect quality of life. Noise is usually defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, and sleep.

To the human ear, sound has two significant characteristics: pitch and loudness. Pitch is generally an annoyance, while loudness can affect the ability to hear. Pitch is the number of complete vibrations, or cycles per second, of a wave resulting in the tone's range from high to low. Loudness is the strength of a sound and describes a noisy or quiet environment; it is measured by the amplitude of the sound wave. Loudness is determined by the intensity of the sound waves, combined with the reception characteristics of the human ear. Sound intensity refers to how hard the sound wave strikes an object, which in turn produces the sound's effect. This characteristic of sound can be precisely measured with instruments. The analysis of a project defines the noise environment of the project area in terms of sound intensity and its effect on adjacent sensitive land uses.

Measurement of Sound. Sound intensity is measured through the A-weighted scale to correct for the relative frequency response of the human ear. That is, an A-weighted noise level deemphasizes low and very high frequencies of sound similar to the human ear's de-emphasis of these frequencies. Unlike linear units, such as inches or pounds, decibels are measured on a logarithmic scale representing points on a sharply rising curve.

For example, 10 decibels (dB) are 10 times more intense than 1 dB, 20 dB are 100 times more intense, and 30 dB are 1,000 times more intense. Thirty decibels (30 dB) represent 1,000 times as much acoustic energy as 1 dB. The decibel scale increases as the square of the change, representing the sound pressure energy. A sound as soft as human breathing is about 10 times greater than 0 dB. The decibel system of measuring sound gives a rough connection between the physical intensity of sound and its perceived loudness to the human ear. A 10 dB increase in sound level is perceived by the human ear as only a doubling of the loudness of the sound. Ambient sounds generally range from 30 dBA (very quiet) to 100 dBA (very loud).

Sound levels are generated from a source, and their decibel level decreases as the distance from that source increases. Sound dissipates exponentially with distance from the noise source. For a single point source, sound levels decrease approximately 6 dB for each doubling of distance from the source. This drop-off rate is appropriate for noise generated by stationary equipment. If noise is produced by a line source, such as highway traffic or railroad operations, the sound decreases 3 dB for each doubling of distance in a hard site environment. Line source, noise in a relatively flat environment with absorptive vegetation, decreases 4.5 dB for each doubling of distance.

There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound. Equivalent continuous sound level (L_{eq}) is the total sound energy of time-varying noise over a sample period. However, the predominant rating scales for human communities in the State of California are the L_{eq} and community noise equivalent level (CNEL) or the day-night average level (L_{dn}) based on A-weighted decibels (dBA). CNEL is the time-varying noise over a 24-hour period, with a 5 dBA weighting factor applied to the hourly L_{eq} for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and a 10 dBA weighting factor applied to noise occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). L_{dn} is similar to the CNEL scale but without the adjustment for events occurring during the evening hours. CNEL and L_{dn} are within one dBA of each other and are normally exchangeable. The noise adjustments are added to the noise events occurring during the more sensitive hours. The City uses the CNEL noise scale for long-term noise impact assessments.

Other noise rating scales of importance when assessing the annoyance factor include the maximum noise level (L_{max}), which is the highest exponential time-averaged sound level that occurs during a stated time period. The noise environments discussed in this analysis are specified in terms of maximum levels denoted by L_{max} for short-term noise impacts. L_{max} reflects peak operating conditions and addresses the annoying aspects of intermittent noise.

Another noise scale often used together with the L_{max} in noise ordinances for enforcement purposes is noise standards in terms of percentile noise levels. For example, the L_{10} noise level represents the noise level exceeded 10 percent of the time during a stated period. The L_{50} noise level represents the median noise level. Half the time the noise level exceeds this level, and half the time it is less than this level. The L_{90} noise level represents the noise level exceeded 90 percent of the time and is considered the background noise level during a monitoring period. For a relatively constant noise source, the L_{eq} and L_{50} are approximately the same.

Noise impacts can be described in three categories. The first is audible impacts, which refers to increases in noise levels noticeable to humans. Audible increases in noise levels generally refer to a change of 3.0 dBA or greater, since this level has been found to be barely perceptible in exterior environments. The second category, potentially audible, refers to a change in the noise level between 1.0 and 3.0 dBA. This range of noise levels has been found to be noticeable only in laboratory environments. The last category is changes in noise level of less than 1.0 dBA, which are inaudible to the human ear. Only audible changes in existing ambient or background noise levels are considered potentially significant.

Psychological and Physiological Effects of Noise. Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects the entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions and thereby affecting blood pressure and functions of the heart and the nervous system. In comparison, extended periods of noise exposure above 90 dBA would result in permanent cell damage. When the noise level reaches 120 dBA, a tickling sensation occurs in the human ear even with short-term exposure. This level of noise is called the threshold of feeling. As the sound reaches 140 dBA, the tickling sensation is replaced by the feeling of pain in the ear. This is called the threshold of pain. A sound level of 160–165 dBA will result in dizziness or loss of equilibrium.

The ambient or background noise problem is widespread and generally more concentrated in urban areas than in outlying, less-developed areas.

Table 4.5-C lists "Definitions of Acoustical Terms," and Table 4.5-D shows "Common Sound Levels and Their Sources."

Table 4.5-C: Definitions of Acoustical Terms

Term	Definition
Decibel, dB	A unit of level that denotes the ratio between two quantities proportional to power; the number of decibels is 10 times the logarithm (to the base 10) of this ratio.
Frequency, Hz	Of a function periodic in time, the number of times that the quantity repeats itself in one second (i.e., number of cycles per second).
A-Weighted Sound Level, dBA	The sound level obtained by use of A-weighting. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. All sound levels in this report are A-weighted, unless reported otherwise.
L_{02}, L_{08}, L_{50}, L_{90}	The fast A-weighted noise levels equaled or exceeded by a fluctuating sound level at 2 percent, 8 percent, 50 percent, and 90 percent of a stated time period.
Equivalent Continuous Noise Level, L_{eq}	The level of a steady sound that, in a stated time period and at a stated location, has the same A-weighted sound energy as the time-varying sound.
Community Noise Equivalent Level, CNEL	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 5 dB to sound levels occurring in the evening from 7:00 p.m. to 10:00 p.m. and after the addition of 10 dB to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.
Day/Night Noise Level, L_{dn}	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 10 dB to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.
L_{max}, L_{min}	The maximum and minimum A-weighted sound levels measured on a sound level meter, during a designated time interval, using fast time averaging.
Ambient Noise Level	The all-encompassing noise associated with a given environment at a specified time, usually a composite of sound from many sources at many directions, near and far; no particular sound is dominant.
Intrusive	The noise that intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, time of occurrence, and tonal or informational content, as well as the prevailing ambient noise level.

Source: Handbook of Acoustical Measurements and Noise Control 1991.

Table 4.5-D: Common Sound Levels and Their Sources

Noise Source	A-Weighted Sound Level in Decibels	Noise Environments	Subjective Evaluations
Near Jet Engine	140	Deafening	128 times as loud
Civil Defense Siren	130	Threshold of Pain	64 times as loud
Hard Rock Band	120	Threshold of Feeling	32 times as loud
Accelerating Motorcycle at a Few Feet Away	110	Very Loud	16 times as loud
Pile Driver; Noisy Urban Street/ Heavy City Traffic	100	Very Loud	8 times as loud
Ambulance Siren; Food Blender	95	Very Loud	
Garbage Disposal	90	Very Loud	4 times as loud
Freight Cars; Living Room Music	85	Loud	
Pneumatic Drill; Vacuum Cleaner	80	Loud	2 times as loud
Busy Restaurant	75	Moderately Loud	
Near Freeway Auto Traffic	70	Moderately Loud	Reference Level
Average Office	60	Quiet	½ as loud
Suburban Street	55	Quiet	
Light Traffic; Soft Radio Music in Apartment	50	Quiet	¼ as loud
Large Transformer	45	Quiet	
Average Residence without Stereo Playing	40	Faint	⅛ as loud
Soft Whisper	30	Faint	
Rustling Leaves	20	Very Faint	
Human Breathing	10	Very Faint	Threshold of Hearing
	0	Very Faint	

Source: Compiled by LSA Associates, Inc. 2002.

4.5.4 Thresholds of Significance

The criteria given in the Initial Study Checklist in Appendix G of the State CEQA Guidelines were used to evaluate potentially significant impacts on noise that could occur as a result of project implementation. The project would result in significant impact related to noise if it would result in:

- 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

- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels
- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project
- For a project located within an airport land use plan, would the project expose people residing or working in the project area to excessive noise levels
- For a project within the vicinity of a private airstrip, heliport or helistop, would the project expose people residing or working in the project area to excessive noise levels

The Initial Study (IS) prepared by the City (Appendix A) determined that the proposed project is a policy change in regard to the City's adopted LOS and replacement of the future designated I-10/ Highland Home Road interchange with an overcrossing. The policy change related to the City's acceptable LOS criteria does not have the potential to expose persons to noise resulting from airport uses. The proposed change of the future interchange to an overcrossing is located at a site that is within 2 miles (mi) of the Banning Municipal airport. However, the proposed change of an interchange to an overcrossing would not expose persons to noise impacts related to aircraft or airport operations, and it is not located within an airport land use plan, private airstrip, heliport or helistop. Therefore, these topics will not be reviewed further in this EIR.

4.5.5 Impacts and Mitigation

Less Than Significant Impacts.

Threshold: 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?

Threshold: Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Threshold: A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

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

Short-Term Construction Noise Impacts. The purpose of the proposed project is to change the LOS at local intersections from LOS C to LOS D. In addition, the proposed project includes replacement of the future planned I-10/Highland Home Road interchange with an overcrossing. The proposed project does not include any specific construction activities within the City. Therefore, no short-term noise impacts from construction would occur, and no mitigation measures would be required.

Long-Term Traffic Noise Impacts. The purpose of the proposed project is to change the LOS at local intersections from LOS C to LOS D and to replace the future planned I-10/Highland Home Road interchange with an overcrossing. The proposed project would not generate new vehicular traffic trips since it would not construct new homes or businesses. However, there is a possibility that the project would affect the traffic flow within the City. Therefore, the potential impact of the proposed project on regional vehicle noise was calculated using the Federal Highway Administration (FHWA) highway traffic noise prediction model (FHWA RD-77-108) in order to evaluate highway traffic-related noise conditions along Wilson Street, Highland Home Road, Ramsey Street, and other roadways in the City. This model requires various parameters, including traffic volumes, vehicle mix, vehicle speed, and roadway geometry to compute typical equivalent noise levels during daytime, evening, and nighttime hours. The existing average daily traffic (ADT) volumes in the area were taken from the *Traffic Impact Analysis* for the I-10/Highland Home Interchange portion of the project (LSA, April 2012). The resultant noise levels are weighted and summed over 24-hour periods to determine the CNEL values.

Table 4.5-E identifies the traffic noise levels that are anticipated if the future planned Highland Home Road interchange were constructed as an overcrossing. The results of the traffic noise modeling are included in Appendix A of the Noise Impact Assessment. There were no changes in ADT between LOS C and LOS D conditions. The change shown in Table 4.5-E is between the existing GP condition with the future planned I-10/Highland Home interchange and the proposed project with the I-10/Highland Home overcrossing. Therefore, the noise levels listed in Table 4.5-E are representative of both the LOS C and LOS D scenarios, but for the purposes of this EIR, are used to evaluate the noise impacts under LOS D (the proposed project).

As shown in Table 4.5-E, the largest increase in noise associated with the proposed project is 0.7 dBA along Ramsey Street between Highland Home Road and Sunset Avenue. This noise level increase is considered small and not perceptible by the human ear. Therefore, project-related long-term traffic noise impacts under the proposed project would be considered less than significant, and no mitigation measures would be required.

Long-Term Operational Noise Impacts. As described above, the GPA LOS policy change and the amendment to a future designated roadway improvement do not include construction of any specific developments within the City. Therefore, long-term operational noise impacts are not anticipated, and no mitigation measures are required.

Based on analysis above, the project would not result in any short-term construction or long-term operational noise impacts. Vehicular noise levels would not change considerably with the project with noise level change ranging from -6.5 dBA to 0.7 dBA. An increase of less than one dBA will not be perceptible to the human ear and will not cause a substantial permanent increase in ambient noise levels in the project vicinity. With the project, there is projected to be a decrease in noise levels along several roadways compared to the existing General Plan. Impacts from noise are considered less than significant, and no mitigation measures are required.

Table 4.5-E: Highland Home Road Overcrossing Traffic Noise Levels

Roadway Segment	Average Daily Traffic	Centerline to 70 CNEL (ft)	Centerline to 65 CNEL (ft)	Centerline to 60 CNEL (ft)	CNEL (dBA) 50 ft from Outermost Lane	Change from Existing General Plan Level (dBA)
Wilson Street West of Highland Springs Avenue	16,300	< 50	106	223	67.5	-0.8
Wilson Street Between Highland Springs Avenue and Highland Home Road	26,400	70	144	306	69.6	-0.7
Wilson Street Between Highland Home Road and Sunset Avenue	33,300	80	167	357	70.6	-0.2
Wilson Street East of Sunset Avenue	26,800	71	145	309	69.7	0.2
6th Street West of Highland Springs Avenue	23,800	66	134	286	69.1	-0.6
Ramsey Street Between Highland Springs Avenue and Highland Home Road	27,600	72	148	315	69.8	-0.2
Ramsey Street Between Highland Home Road and Sunset Avenue	33,000	80	166	355	70.6	0.7
Ramsey Street East of Sunset Avenue	27,000	71	146	311	69.7	0.2
1st Street West of Highland Springs Avenue	23,300	65	133	282	69.1	-0.5
Sun Lakes Boulevard Between Highland Springs Avenue and Highland Home Road	32,700	80	165	353	70.5	0.4
Westward Avenue Between Highland Home Road and Sunset Avenue	14,500	< 50	79	169	66.6	0.0
Westward Avenue East of Sunset Avenue	1,400	< 50	< 50	< 50	56.5	0.0
Highland Springs Avenue North of Wilson Street	33,700	81	168	360	70.7	0.4
Highland Springs Avenue Between Wilson Street and Ramsey Street	33,000	80	166	355	70.6	0.3
Highland Springs Avenue Between Ramsey Street and I-10	43,400	95	199	426	71.8	0.7
Highland Springs Avenue Between I-10 and Sun Lake Boulevard	27,700	72	148	316	69.8	-0.5
Highland Springs Avenue South of Sun Lake Boulevard	25,000	68	139	295	69.4	-0.4
Highland Home Road North of Wilson Street	30,100	76	156	334	70.2	0.0
Highland Home Road Between Wilson Street and Ramsey Street	23,200	65	132	281	69.0	-0.9
Highland Home Road Between Ramsey Street and I-10	7,700	< 50	67	136	64.2	-6.5
Highland Home Road Between I-10 and Sun Lake Boulevard	9,400	< 50	75	155	65.1	-1.4
Highland Home Road South of Sun Lake Boulevard	5,000	< 50	< 50	104	62.4	-1.4
Sunset Avenue North of Wilson Street	20,400	< 50	100	212	67.6	-0.5
Sunset Avenue Between Wilson Street and Ramsey Street	22,800	< 50	107	229	68.1	-0.3

Table 4.5-E: Highland Home Road Overcrossing Traffic Noise Levels

Roadway Segment	Average Daily Traffic	Centerline to 70 CNEL (ft)	Centerline to 65 CNEL (ft)	Centerline to 60 CNEL (ft)	CNEL (dBA) 50 ft from Outermost Lane	Change from Existing General Plan Level (dBA)
Sunset Avenue Between Ramsey Street and I-10	36,100	69	145	310	70.1	0.1
Sunset Avenue Between I-10 and Lincoln Street	20,700	< 50	101	214	67.7	-0.3
Sunset Avenue Between Lincoln Street and Westward Avenue	7,500	< 50	54	110	63.3	-0.2
Sunset Avenue South of Westward Avenue	4,300	< 50	< 50	77	60.9	-1.3

Source: LSA Associates, Inc., April 2012.
ADT = average daily trips
CNEL = Community Noise Equivalent Level
dBA = A-weighted decibel
ft = feet, foot
I-10 = Interstate 10

Mitigation Measures. The proposed project would result in less than significant noise impacts. Therefore, mitigation measures are not required.

4.5.6 Cumulative Impacts

As defined in Section 15130 of the CEQA Guidelines, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects within the cumulative impact area for land use. The proposed project's cumulative impact area for noise would be the City of Banning, which is the same impact area as considered for the proposed project. The proposed project's potential noise impacts are based on traffic volumes developed in the traffic study (Appendix B), which was a cumulative analysis based on General Plan buildout conditions. The project does not include any construction activities and would not contribute to cumulative construction noise impacts from other planned and future projects. In addition, the GPA policy change would not create any project-related traffic that would contribute to cumulative traffic noise impacts in the project vicinity. Therefore, the project's potential noise impacts are considered less significant and would not contribute to cumulative noise impacts.

4.5.7 Level of Significance After Mitigation

No mitigation is required; impacts to noise as a result of project implementation would be less than significant.

4.6 TRAFFIC AND TRANSPORTATION

Introduction

The purpose of this section is to evaluate the impacts of a proposed amendment to the adopted City of Banning (City) General Plan Circulation Element (adopted in January 2006) (the project). According to the current General Plan Circulation Element, Highland Home Road will be extended from Ramsey Street to Lincoln Street and provide access (via an interchange) to Interstate 10 (I-10). The City is proposing the removal of the I-10/Highland Home Road interchange while retaining the overcrossing. In addition, the City is proposing to change its existing circulation policy for acceptable Level of Service (LOS) criteria from LOS C to LOS D for all intersections within the City. LOS C is currently identified as the upper limit of satisfactory operation except for intersections along Ramsey Street and interchange intersections along I-10, where LOS D is considered satisfactory.

Information in this section is based on the *Traffic Impact Analysis for the Banning General Plan Amendment Removal of Highland Home Road/Interstate 10 Interchange* (I-10/Highland Home Road Interchange TIA), prepared by LSA Associates Inc. (September 2012), the *Traffic Impact Analysis for the Banning General Plan Amendment Change in Level of Service Policy* (LOS Criteria Change TIA), prepared by LSA Associates, Inc. (September 2012), *and the City of Banning General Plan* (January 2006). The LOS Criteria Change TIA (LSA Associates, 2012) was based on the adopted General Plan and included the same eight intersections studied in the TIA previously conducted for the General Plan. The study area for the I-10/Highland Home Road Interchange TIA (LSA Associates, 2012) included intersections that are most likely to be impacted by removal of the I-10/Highland Home Road interchange. The specific study areas for both are described below. The I-10/Highland Home Road Interchange TIA and the LOS Criteria Change TIA are both included in Appendix B.

4.6.1 Existing Environmental Setting

Existing Circulation System. Major roadways in the City of Banning that were included in the study area are I-10, Highland Springs Avenue, Highland Home Road, Wilson Street, Sunset Avenue, Lincoln Street, Ramsey Street, Hargrave Street, 8th Street and Sun Lakes Boulevard (Figure 4.6-1). Existing AM and PM peak hour traffic volumes are provided in Table 4.6-A.

Study Area: Level of Service Criteria Change. The study area for the LOS Criteria Change TIA was based on the study area evaluated in the City's adopted General Plan. The intersections that were categorized under LOS C criteria in the adopted General Plan were selected as the study area intersections. The study area includes the following intersections, as shown in Figure 4.6-2:

1. Highland Springs Avenue/Wilson Street
2. Highland Springs Avenue/Sun Lakes Boulevard
3. Highland Home Road/Wilson Street
4. Sunset Avenue/Wilson Street
5. Sunset Avenue/Lincoln Street
6. 8th Street/Wilson Street

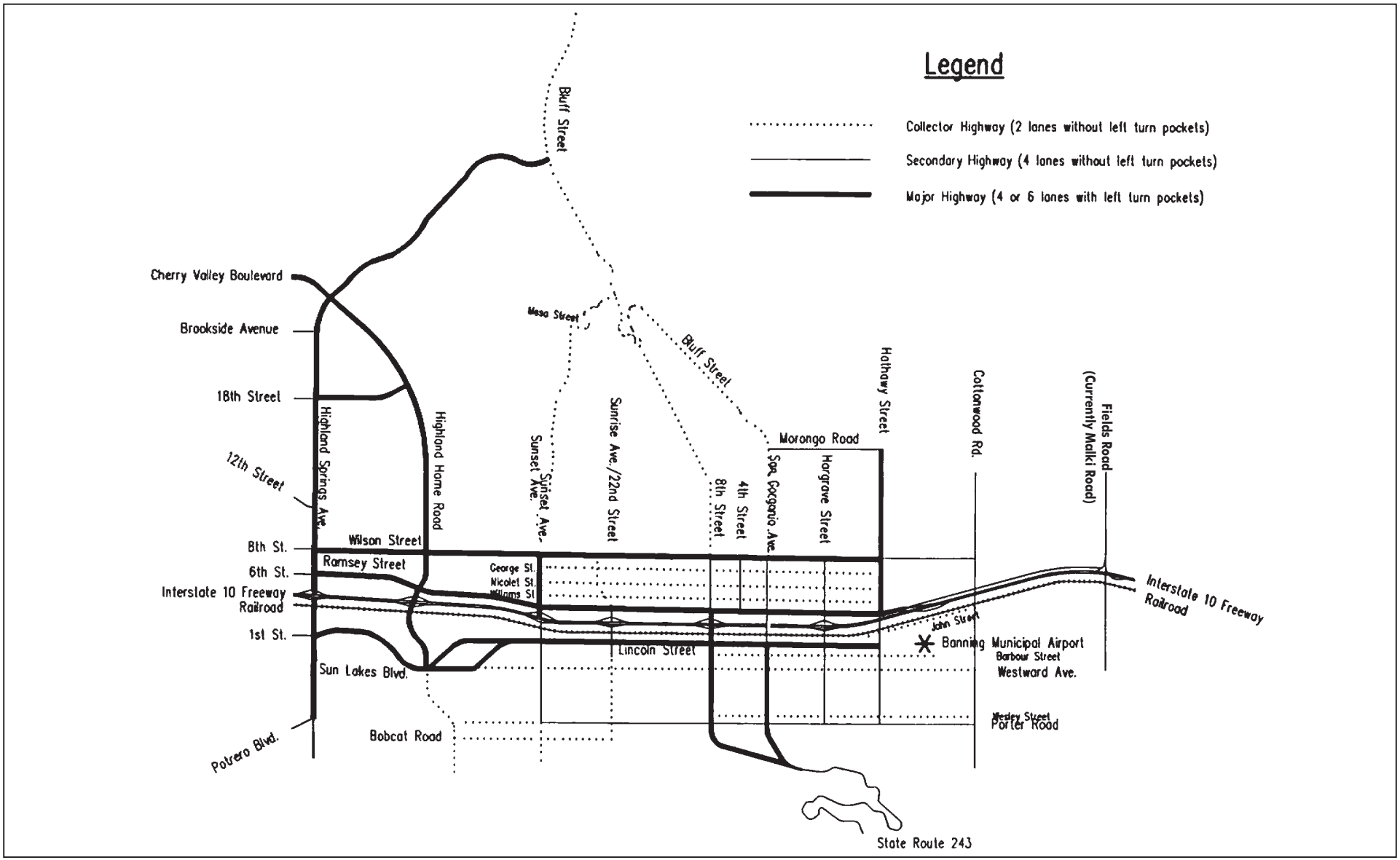

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FIGURE 4.6-1

City of Banning Circulation Element
General Plan Ammendment

Existing General Plan Street System

SOURCE: Kunzman Associates

I:\COB1101\G\GP Street System.cdr (9/7/12)

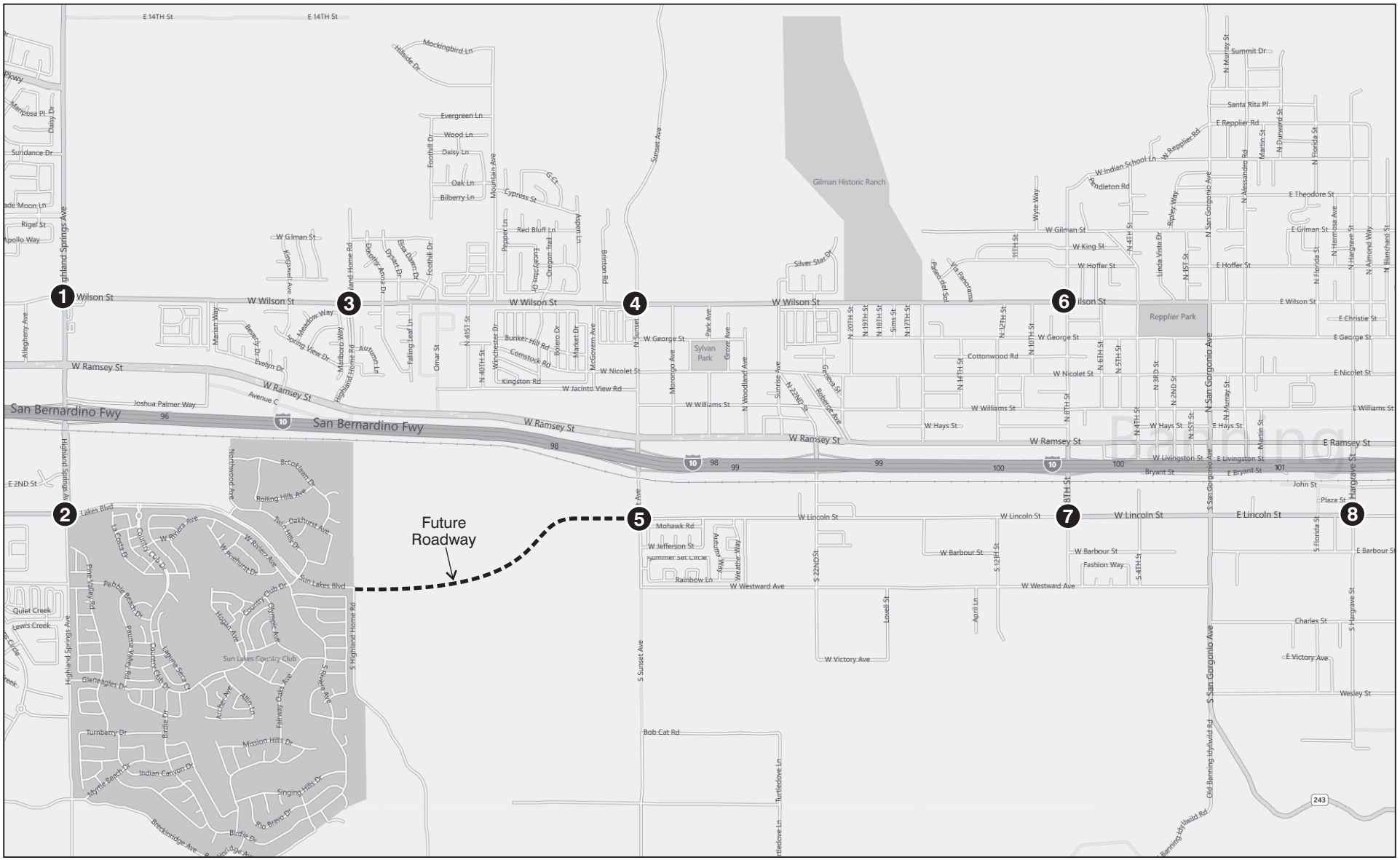
Table 4.6-A: Existing Peak-Hour Traffic Volumes

AM Peak-Hour Volume (in vehicles)												
	Northbound			Southbound			Eastbound			Westbound		
Intersections	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Highland Springs Ave/8th St-Wilson St	57	561	243	241	1,136	215	93	173	101	432	365	166
Highland Springs Ave/6th St-Ramsey St	237	867	278	223	1,356	109	106	227	310	269	139	131
Highland Springs Ave/I-10 WB Ramps	465	983	0	0	1,357	577	0	0	0	446	0	349
Highland Springs Ave/I-10 EB Ramps	0	1,004	518	557	1,246	0	494	0	400	0	0	0
Highland Springs Ave/1st St-Sun Lakes	136	1,044	76	134	734	57	91	87	43	84	232	185
Highland Home Rd/Wilson St	113	429	87	493	852	176	75	454	223	345	599	258
Highland Home Rd/Ramsey St	335	507	244	136	1,326	192	85	275	210	145	261	88
Highland Home Rd/Westward Ave	99	152	11	119	77	109	78	143	33	3	246	161
Sunset Ave/Wilson St	139	258	44	137	778	230	212	652	271	51	315	67
Sunset Ave/Ramsey St	166	442	148	101	1,209	115	47	227	129	98	191	28
Sunset Ave/I-10 WB Ramps	498	574	0	0	666	771	0	0	0	79	7	182
Sunset Ave/I-10 EB Ramps	0	731	169	306	439	0	341	2	318	0	0	0
Sunset Ave/Lincoln St	40	411	25	94	255	134	288	176	25	13	114	67
Sunset Ave/Westward Ave	0	292	8	2	250	0	0	0	0	9	0	1
Highland Home Rd/I-10 WB Ramps	252	664	0	0	710	941	0	0	0	32	0	374
Highland Home Rd/I-10 EB Ramps	0	475	89	490	252	0	472	0	83	0	0	0
8th Street/Wilson Street	124	61	30	180	208	74	36	583	162	53	265	44
8th Street/Lincoln Street	24	232	55	531	158	64	62	238	20	12	114	528
Hargrave Street/Lincoln Street	14	154	25	865	250	77	90	244	57	8	115	354

Table 4.6-A: Existing Peak-Hour Traffic Volumes

PM Peak-Hour Volume (in vehicles)												
	Northbound			Southbound			Eastbound			Westbound		
Intersections	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Highland Springs Ave/8th St-Wilson St	34	1,149	461	390	824	185	185	807	49	333	709	400
Highland Springs Ave/6th St-Ramsey St	447	1,311	344	380	963	151	211	742	313	383	837	271
Highland Springs Ave/I-10 WB Ramps	288	1,410	0	0	1,185	475	0	0	0	510	0	587
Highland Springs Ave/I-10 EB Ramps	0	1,369	544	291	1,403	0	433	0	384	0	0	0
Highland Springs Ave/1st St-Sun Lakes	160	868	252	202	1,023	68	128	974	237	248	1,089	226
Highland Home Rd/Wilson St	361	915	254	384	798	165	114	1,196	241	131	1,022	683
Highland Home Rd/Ramsey St	346	1,221	286	340	725	130	242	779	459	430	909	267
Highland Home Rd/Westward Ave	117	160	12	270	238	159	175	1,087	155	17	1,258	197
Sunset Ave/Wilson St	381	864	151	158	415	328	357	916	202	62	1,145	132
Sunset Ave/Ramsey St	410	1,212	234	108	843	279	284	855	183	658	656	95
Sunset Ave/I-10 WB Ramps	475	1,667	0	0	696	989	0	0	0	96	15	190
Sunset Ave/I-10 EB Ramps	0	1,247	64	113	697	0	895	4	482	0	0	0
Sunset Ave/Lincoln St	96	302	32	156	399	388	256	898	58	27	1,061	445
Sunset Ave/Westward Ave	0	263	13	18	286	0	0	0	0	25	0	81
Highland Home Rd/I-10 WB Ramps	144	1,185	0	0	901	688	0	0	0	64	0	562
Highland Home Rd/I-10 EB Ramps	0	540	36	467	498	0	858	0	303	0	0	0
8th Street/Wilson Street	66	207	58	136	108	50	77	830	58	60	1140	183
8th Street/Lincoln Street	88	305	46	514	326	227	494	689	134	46	1198	458
Hargrave Street/Lincoln Street	143	195	23	577	211	940	309	397	86	56	275	826

EB = eastbound
WB = westbound
I-10 = Interstate 10



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LEGEND

3 - Study Area Intersection

- - - - Future General Plan Roadway

FIGURE 4.6-2

N

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SOURCE: Bing Maps

City of Banning Circulation Element
General Plan Amendment

LOS Study Area Intersections

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7. 8th Street/Lincoln Street
8. Hargrave Street/Lincoln Street

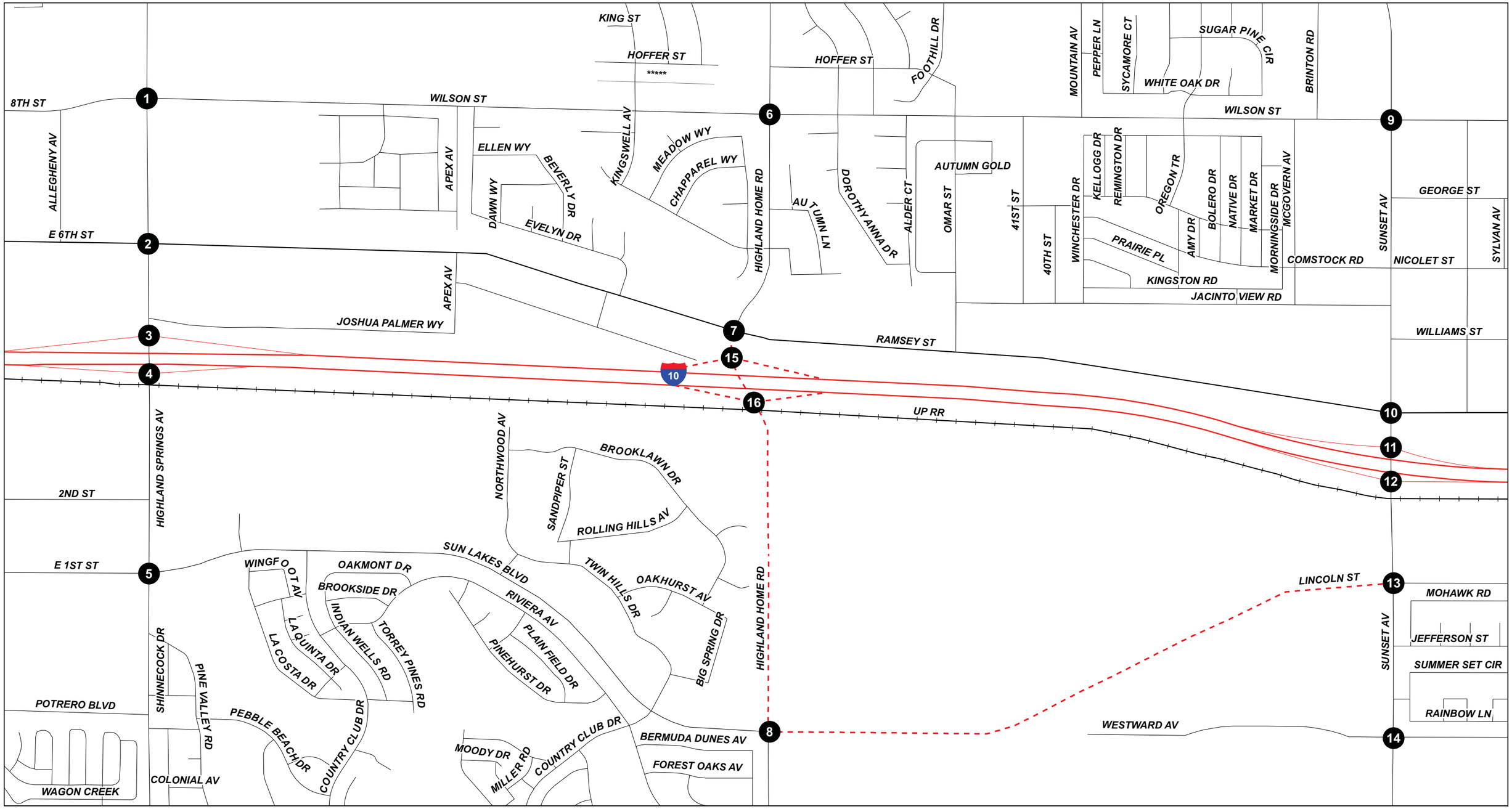
Study Area: I-10/Highland Home Interchange Removal. Intersections along Highland Home Road (north and south of I-10), Highland Springs Avenue (interchange just west of Highland Home Road), and Sunset Avenue (interchange just east of Highland Home Road) were included in the analysis in order to assess the impacts of the removal of the I-10/Highland Home Road interchange. The study area includes the following intersections, as illustrated in Figure 4.6-3:

1. Highland Springs Avenue/Wilson Street
2. Highland Springs Avenue/Ramsey Street
3. Highland Springs Avenue/I-10 Westbound Ramps
4. Highland Springs Avenue/I-10 Eastbound Ramps
5. Highland Springs Avenue/Sun Lakes Boulevard
6. Highland Home Road/Wilson Street
7. Highland Home Road/Ramsey Street
8. Highland Home Road/Sun Lakes Boulevard–Westward Avenue
9. Sunset Avenue/Wilson Street
10. Sunset Avenue/Ramsey Street
11. Sunset Avenue/I-10 Westbound Ramps
12. Sunset Avenue/I-10 Eastbound Ramps
13. Sunset Avenue/Lincoln Street
14. Sunset Avenue/Westward Avenue
15. Highland Home Road/I-10 Westbound Ramps
16. Highland Home Road/I-10 Eastbound Ramps

4.6.2 Regulatory Setting

Federal. There are no known federal standards that would directly affect the traffic and transportation aspects of the proposed project. The project Study Area includes I-10, an interstate freeway under the jurisdiction of the California Department of Transportation (Caltrans) and the Federal Highway Administration (FHWA). Federal funding for this facility would have to comply with Caltrans-administered FHWA procedures, and any future physical improvements to the I-10 interchanges would have to comply with Caltrans procedures, many of which reflect strict FHWA regulations.[1]

[1] The Federal Highway Administration (FHWA) and the California Department of Transportation (Caltrans) regulations can be found at www.dot.ca.gov/ser.



LSA

LEGEND

- 1 Study Area Intersections
- Future/Proposed Roadway

0 400 800
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SOURCE: Thomas Bros. (2010)

I:\COB1101\G\I-10-HH Road Study Ints.cdr (8/14/12)

FIGURE 4.6-3

City of Banning Circulation Element
General Plan Ammendment

I-10/Highland Home Road
Study Area Intersections

4.6.3 State.

Caltrans. As noted above, Caltrans acts as the federal representative for improvements to I-10 under a federal delegation agreement.[2] FHWA maintains certain review and approval authority over any project affecting I-10.

The Pass Area Regional Transportation Needs Assessment Report (PARTNAR) prepared by Caltrans in 2010, identifies capacity improvements to select locations along I-10 (per the Capacity and Interchange Improvements Map), such as ramp modifications at Sunset Avenue (east of Highland Home Road) and the widening of I-10 from four lanes to six lanes at Highland Springs Avenue (west of Highland Home Road). The I-10/Highland Home Road interchange or overcrossing improvements are neither recommended nor included in the PARTNAR. According to the PARTNAR, the I-10/Highland Home Road interchange does not meet minimum interstate spacing criteria and therefore is not included in any long-range freeway planning studies by the County of Riverside, the Southern California Association of Governments (SCAG), or Caltrans.

Regional.

Southern California Association of Governments. The 2012 RTP has been adopted by SCAG and is expected to be determined as conforming by the Federal Highway Administration (FHWA) and the Federal Transportation Administration (FTA) by June 2012. However, the current conforming RTP adopted by SCAG remains the 2008 RTP. On May 8, 2008, the SCAG Regional Council adopted the 2008 Regional Transportation Plan (RTP). The 2008 RTP emphasizes the importance of system management, goods movement, and innovative transportation financing. The 2008 RTP strives to provide a regional investment framework to address the region's transportation and related challenges. It also looks to strategies that preserve and enhance the existing transportation system and integrate land use into transportation planning. The 2008 RTP includes goals and policies applicable to transportation.

The 2012 Draft RTP identifies the transportation vision for the region through 2035 and provides a long-term investment framework for addressing the region’s transportation and related challenges. The plan is a balanced approach that focuses future investments on the best-performing projects and strategies that seek to preserve, maintain, and optimize the performance of the existing system. The 2012 Draft RTP includes goals and policies applicable to transportation. However, as stated above, the I-10/Highland Home Road interchange is not included in any long-range freeway planning studies by SCAG.

Riverside County Congestion Management Program. As required under 1990’s Proposition 111, every county in California is required to develop a Congestion Management Program (CMP) that looks at the links between land use, transportation, and air quality. In its role as the Riverside County Congestion Management Agency, Riverside County Transportation Commission (RCTC) prepares and periodically updates Riverside County’s (County) CMP to meet federal Congestion

[2] http://www.dot.ca.gov/hq/env/nepa_pilot/index.htm.

Management System guidelines as well as State CMP legislation. The current CMP was adopted by RCTC in March 2010.

Section 65089.3 (c) of the Government Code requires that RCTC, as the Congestion Management Agency (CMA), in consultation with SCAG, cities, and the County, develop a uniform database on traffic impacts for use in a countywide transportation model. RCTC, in consultation with SCAG, must approve transportation computer models that will be used by local jurisdictions and the County to determine the quantitative impacts of development on the circulation system. Local transportation models shall be consistent with the databases used by SCAG. However, as stated above, the I-10/Highland Home Road interchange is not included in any long-range freeway planning studies by the County of Riverside.

Riverside County General Plan. Adopted in 2003, the Riverside County General Plan sets the direction for land use and development in unincorporated areas of Riverside County. The Riverside County General Plan contains Area Plans that are intended to guide development in specific locations in the County. The County of Riverside's General Plan currently includes an overcrossing at the I-10/Highland Home Road location.

The acceptable LOS criterion identified in the County of Riverside General Plan Circulation Element is provided in Policy C.2.1 below.

Policy C.2.1 LOS "C" along all County maintained roads and conventional state highways. As an exception, LOS "D" may be allowed in Community Development areas, only at intersections of any combination of Secondary Highways, Major Highways, Urban, Expressways, conventional state highways or freeway ramp intersections. LOS "E" may be allowed in designated community centers to the extent that it would support transit-oriented development and walkable Communities.

Per the County General Plan, the City of Banning is included in a Community Development area; thus, the applicable County LOS standard would be LOS D.

Local.

City of Banning – General Plan Circulation Element. The *City of Banning General Plan* Circulation Element standard provides that LOS C is the upper limit of satisfactory operations except for intersections along Ramsey Street and at all I-10 interchange intersections, where LOS D is considered satisfactory. Mitigation is required for any intersections where a proposed project's traffic causes the intersection to deteriorate from satisfactory to unsatisfactory operation. The City does not have an adopted criterion that defines significant impact at an existing deficient intersection; therefore, a conservative criterion was developed to address this potential condition. If an intersection is already operating at an unsatisfactory LOS, any increase in delay due to the addition of one or more cars would constitute a significant project impact. This criterion was applied to study intersections not only in the City, but also in the jurisdictions of the City of Beaumont and the County of Riverside.

4.6.4 Methodology

Consistent with Riverside County guidelines, all study area intersections were analyzed using the 2000 *Highway Capacity Manual* (HCM 2000) analysis methodologies. Intersection LOS was calculated using Traffix software.

Roadway operations and the relationship between capacity and traffic volumes are generally shown in terms of LOS, defined using the letter grades A through F. While an absolute limit in the amount of traffic traveling through a given intersection (the absolute capacity) exists, the conditions will rapidly deteriorate for the motorist as traffic approaches the absolute capacity, which causes congestion at that given intersection. There is general instability in the traffic flow, which means that relatively small incidents (e.g., momentary engine stall) can cause considerable fluctuations in speeds and delays. This near-capacity situation is labeled LOS E. Beyond LOS E, capacity has been exceeded, and arriving traffic will exceed the ability of the intersection to accommodate it. A queue will then form and continue to expand in length until the demand volume again declines.

Brief descriptions of the six levels of service are provided below in Table 4.6-B. Table 4.6-C shows the relationship between LOS and intersection delay for unsignalized and signalized intersections.

Table 4.6-B: Traffic Level of Service Definitions

Level of Service	Description
A	No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turns are made easily, and nearly all drivers find freedom of operation.
B	This service level represents stable operation, where an occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel restricted within platoons of vehicles.
C	This level still represents stable operating conditions. Occasionally, drivers may have to wait through more than one red signal indication, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted but not objectionably so.
D	This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
E	Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is seldom attained no matter how great the demand.
F	This level describes forced flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially and stoppages may occur for short or long periods of time due to the congestion. In the extreme case, both speed and volume can drop to zero.

Source: Transportation Research Board Special Report 209, Highway Capacity Manual.

Table 4.6-C: Level of Service Criteria for Unsignalized and Signalized Intersections

Level of Service	Unsignalized Intersection Average Delay per Vehicle (seconds)	Signalized Intersection Average Delay per Vehicle (seconds)
A	≤ 10	≤ 10
B	> 10 and ≤ 15	> 10 and ≤ 20
C	> 15 and ≤ 25	> 20 and ≤ 35
D	> 25 and ≤ 35	> 35 and ≤ 55
E	> 35 and ≤ 50	> 55 and ≤ 80
F	> 50	> 80

Source: Transportation Research Board Special Report 209, Highway Capacity Manual.

Traffic volumes for analyzing the study area intersections for General Plan Buildout under all scenarios were developed from the Pass Area Traffic Model (PAM), which was used in developing traffic volumes in the adopted General Plan TIA.

4.6.5 Thresholds of Significance

The criteria used to determine the significance of potential impacts related to traffic and transportation are from the Initial Study Checklist in Appendix G of the State CEQA Guidelines. The project would result in a significant impact related to traffic and transportation if it would:

Threshold 4.6.1 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)

Threshold 4.6.2 Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways

Threshold 4.6.3 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

Threshold 4.6.4 Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses

Threshold 4.6.5 Result in inadequate emergency access

Threshold 4.6.6 Result in inadequate parking capacity

Threshold 4.6.7 Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus stops/routes, bicycle lanes, sidewalks, etc.)

Thresholds 4.6.3 through 4.6.7 were evaluated previously in the Initial Study (December 2011). Based on the analysis in the Initial Study (Appendix A), it was determined that no impacts would occur related to air traffic patterns, design feature hazards, emergency access, parking, or alternative transportation policies. Therefore, these thresholds were considered to have a less than significant impact and are not discussed further in this EIR.

4.6.6 Impacts and Mitigation

The potential impacts associated with implementation of the GPA project were evaluated for both the LOS criteria policy change and the I-10/Highland Home Road interchange. Two separate TIAs were conducted to address the LOS and interchange replacement components of the proposed project. Each TIA had its separate study area; the LOS Criteria Change TIA included the same eight intersections studied in the TIA previously conducted for the adopted General Plan while the I-10/Highland Home Road Interchange TIA study area included intersections that are most likely to be impacted by removal of the I-10/Highland Home Road interchange. Potential impacts are discussed separately for each significance threshold.

Less Than Significant Impacts.

Threshold 4.6.1 *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)*

Threshold 4.6.2 *Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways*

Level of Service Criteria Change. According to the current General Plan Circulation Element, the City considers LOS C as the upper limit of satisfactory operation except for intersections along Ramsey Street and interchange intersections along I-10, where LOS D is considered satisfactory. The City is proposing to change its existing policy for acceptable LOS criteria from LOS C to LOS D for all intersections within the City. The proposed LOS criteria change could potentially result in minor increases in delay and congestion levels.

Traffic conditions were analyzed at eight intersections for a.m. and p.m. peak hours for the following conditions:

- General Plan Buildout Conditions (LOS C)
- General Plan Buildout with LOS D Improvement Conditions

Consistent with the approach used in the adopted General Plan, the future General Plan Buildout conditions at all study area intersections were analyzed using existing intersection configurations. The traffic volumes for the General Plan Buildout conditions were obtained from the adopted General Plan. The General Plan Buildout peak-hour volumes are contained in the LOS Criteria Change TIA (Appendix B).

An LOS analysis was conducted as part of the City General Plan Circulation Element to evaluate General Plan Buildout a.m. and p.m. peak-hour traffic operations at the study area intersections. Table 4.6-D summarizes the results of the LOS analysis for baseline conditions. As shown in this table, all study area intersections exceed LOS thresholds during both peak hours (LOS F), with the exception of Highland Springs Avenue/Wilson Street and Highland Springs Avenue/Sun Lakes Boulevard. These two intersections were previously all-way stop-controlled (AWSC) intersections during preparation of the General Plan. However, the existing geometrics at Highland Springs Avenue/Wilson Street and Highland Springs Avenue/Sun Lakes Boulevard have since been improved and are currently signalized.

Table 4.6-D: LOS Summary: Adopted General Plan Buildout Baseline

		Baseline				
			AM Peak Hour		PM Peak Hour	
	Intersection[1]	Control	Delay	LOS	Delay	LOS
1	Highland Springs Avenue/Wilson Street[2]					
	Adopted General Plan	AWSC	>50.0 sec	**F**[3]	>50.0 sec	**F**
	Existing Geometrics	Signal	32.2 sec	C	>80.0 sec	**F**
2	Highland Springs Avenue/Sun Lakes Boulevard[1]					
	Adopted General Plan	AWSC	>50.0 sec	**F**	>50.0 sec	**F**
	Existing Geometrics	Signal	27.5 sec	C	>80.0 sec	**F**
3	Highland Home Road/Wilson Street	TWSC	>50.0 sec	**F**	>50.0 sec	**F**
4	Sunset Avenue/Wilson Street	AWSC	>50.0 sec	**F**	>50.0 sec	**F**
5	Sunset Avenue/Lincoln Street	TWSC	>50.0 sec	**F**	>50.0 sec	**F**
6	8th Street/Wilson Street	AWSC	>50.0 sec	**F**	>50.0 sec	**F**
7	8th Street/Lincoln Street	AWSC	> 50.0 sec	**F**	>50.0 sec	**F**
8	Hargrave Street/Lincoln Street	AWSC	> 50.0 sec	**F**	>50.0 sec	**F**

[1] Intersections are analyzed using the Highway Capacity Manual (HCM) methodology.
[2] The intersection control and geometrics have been improved since the General Plan was adopted.
[3] **Bold** = exceeds City's LOS criteria
AWSC = all-way stop-controlled
LOS = level of service
sec = seconds
TWSC = two-way stop-controlled

At any intersection that is projected to operate at an unsatisfactory LOS, the City requires that improvements be identified to maintain conformance with LOS standards. A list of improvements that are included within the existing General Plan under LOS C conditions are listed below:

- **Highland Springs Avenue/Wilson Street:** Add two northbound through lanes, a second southbound left-turn lane, a third southbound through lane, and a second westbound left-turn lane.

- **Highland Springs Avenue/Ramsey Street:** Add a second northbound left-turn lane, a third northbound through lane, a second southbound left-turn lane, a third southbound through lane, and a third westbound through lane.
- **Highland Springs Avenue/Sun Lakes Boulevard:** Add a third northbound through lane, a designated northbound right-turn lane, a second southbound left-turn lane, a third southbound through lane, a second eastbound left-turn lane, a designated eastbound right-turn lane, a second westbound left-turn lane, and a second westbound through lane.
- **Highland Home Road/Wilson Street:** Install a traffic signal. Add a second northbound left-turn lane, two northbound through lanes, two southbound left-turn lanes, two southbound through lanes, a designated southbound right-turn lane, a second eastbound left-turn lane, a designated eastbound right-turn lane, a second westbound left-turn lane, and a designated westbound right-turn lane.
- **Highland Home Road/Ramsey Street:** Install a traffic signal. Add two northbound left-turn lanes, two northbound through lanes, a designated northbound right-turn lane, a second southbound left-turn lane, two southbound through lanes, a designated southbound right-turn lane, a third eastbound through lane, a second westbound left-turn lane, and a third westbound through lane.
- **Highland Home Road/Westward Avenue:** Install a traffic signal. Add a northbound left-turn lane, a southbound left-turn lane, two eastbound through lanes, and two westbound through lanes.
- **Sunset Avenue/Wilson Street:** Install a traffic signal. Add two northbound left-turn lanes, a second northbound through lane, a southbound left-turn lane, a second southbound through lane, a designated southbound right-turn, two eastbound left-turn lanes, a second eastbound through lane, a designated eastbound right-turn lane, a westbound left-turn lane, two westbound through lanes, and a designated westbound right-turn lane.
- **Sunset Avenue/Ramsey Street:** Add a designated northbound right-turn lane, a designated southbound right-turn lane, a second eastbound left-turn lane, a third eastbound through lane, a designated eastbound right-turn lane, a second westbound left-turn lane, a third westbound through lane, and a designated westbound right-turn lane.
- **Sunset Avenue/I-10 Westbound Ramps:** Install a traffic signal and add a free southbound right-turn lane.
- **Sunset Avenue/I-10 Eastbound Ramps:** Install a traffic signal. Add a designated northbound right-turn lane, a southbound left-turn lane, and two eastbound left-turn lanes.
- **Sunset Avenue/Lincoln Street:** Install a traffic signal. Add a northbound left-turn lane, a second northbound through lane, a southbound left-turn lane, a second southbound through lane, a designated southbound right-turn lane, two eastbound left-turn lanes, a second eastbound through lane, a westbound left-turn lane, a second westbound through lane, and a designated westbound right-turn lane.
- **8th Street/Wilson Street:** Install a traffic signal. Add a northbound left-turn lane, a southbound left-turn lane, a shared eastbound through/right-turn lane (i.e., conversion of the designated eastbound right-turn lane and widening of the departure leg to accept the eastbound through lane), and a second westbound through lane.

- **8th Street/Lincoln Street:** Install a traffic signal. Add a northbound left-turn lane, a second northbound through lane, a designated northbound right-turn lane, two southbound left-turn lanes, a second southbound through lane, two eastbound left-turn lanes, a second eastbound through lane, a designated eastbound right-turn lane, a westbound left-turn lane, and a second westbound through lane.
- **Hargrave Street/Lincoln Street:** Install a traffic signal. Add a northbound left-turn lane, a second northbound through lane, two southbound left-turn lanes, a free southbound right-turn lane, an eastbound left-turn lane, a second eastbound through lane, a designated eastbound right-turn lane, a westbound left-turn lane, a second westbound through lane, and a free westbound right-turn lane.

The following list of improvements would be required for the existing General Plan under LOS D conditions:

- **Highland Springs Avenue/Wilson Street:** Add two northbound through lanes, a second southbound left-turn lane, and a third southbound through lane.
- **Highland Springs Avenue/Ramsey Street:** Add a second northbound left-turn lane, a third northbound through lane, a second southbound left-turn lane, a third southbound through lane, and a third westbound through lane.
- **Highland Springs Avenue/Sun Lakes Boulevard:** Add a third northbound through lane, a third southbound through lane, and a second westbound through lane.
- **Highland Home Road/Wilson Street:** Install a traffic signal. Add two northbound through lanes, a southbound left-turn lane, two southbound through lanes, a designated southbound right-turn lane, a designated eastbound right-turn lane, and a designated westbound right-turn lane.
- **Highland Home Road/Ramsey Street:** Install a traffic signal. Add two northbound left-turn lanes, two northbound through lanes, a designated northbound right-turn lane, a second southbound left-turn lane, two southbound through lanes, a designated southbound right-turn lane, a third eastbound through lane, a second westbound left-turn lane, and a third westbound through lane.
- **Highland Home Road/Westward Avenue:** Install a traffic signal Add a northbound left-turn lane, a southbound left-turn lane, a second eastbound through lane, and a second westbound through lane.
- **Sunset Avenue/Wilson Street:** Install a traffic signal. Add two northbound left-turn lanes, a second northbound through lane, a southbound left-turn lane, a second southbound through lane, a designated southbound right-turn lane, an eastbound left-turn lane, a second eastbound through lane, a designated eastbound right-turn lane, a westbound left-turn lane, a second westbound through lane, and a designated westbound right-turn lane.
- **Sunset Avenue/Ramsey Street:** Add a designated northbound right-turn lane, a designated southbound right-turn lane, a second eastbound left-turn lane, a third eastbound through lane, a designated eastbound right-turn lane, a second westbound left-turn lane, a third westbound through lane, and a designated westbound right-turn lane.
- **Sunset Avenue/I-10 Westbound Ramps:** Install a traffic signal and add a free southbound right-turn lane.

- **Sunset Avenue/I-10 Eastbound Ramps:** Install a traffic signal. Add a designated northbound right-turn lane, a southbound left-turn lane, and two eastbound left-turn lanes.
- **Sunset Avenue/Lincoln Street:** Install a traffic signal. Add a northbound left-turn lane, a second northbound through lane, a southbound left-turn lane, a second southbound through lane, an eastbound left-turn lane, a second eastbound through lane, a westbound left-turn lane, a second westbound through lane, and a designated westbound right-turn lane.
- **8th Street/Wilson Street:** Install a traffic signal. Add a shared eastbound through/right-turn lane (i.e., conversion of the designated eastbound right-turn lane and widening of the departure leg to accept the eastbound through lane) and a second westbound through lane.
- **8th Street/Lincoln Street:** Install a traffic signal. Add a northbound left-turn lane, a second northbound through lane, two southbound left-turn lanes, a second southbound through lane, two eastbound left-turn lanes, a second eastbound through lane, a westbound left-turn lane, and a second westbound through lane.
- **Hargrave Street/Lincoln Street:** Install a traffic signal. Add a northbound left-turn lane, a designated northbound right-turn lane, two southbound left-turn lanes, a free southbound right-turn lane, an eastbound left-turn lane, a designated eastbound right-turn lane, a westbound left-turn lane, and a free westbound right-turn lane.

Based on the intersection LOS analysis, the improvement measures described for the General Plan Buildout with LOS C would result in acceptable LOS C during both peak hours. Table 4.6-E summarizes the results of the analysis. Additionally, inclusion of the improvement measures described above for the General Plan Buildout with LOS D would result in acceptable LOS D during both peak hours. Table 4.6-F summarizes the results of the General Plan Buildout with LOS D improvements analysis.

Table 4.6-E: LOS Summary: General Plan Buildout with LOS C Improvements

		With LOS C Improvements				
			AM Peak Hour		PM Peak Hour	
	Intersection	Control	Delay	LOS	Delay	LOS
1	Highland Springs Avenue/Wilson Street	Signal	25.2 sec	C	32.4 sec	C
2	Highland Springs Avenue/Sun Lakes Boulevard	Signal	28.9 sec	C	31.2 sec	C
3	Highland Home Road/Wilson Street	Signal	28.1 sec	C	34.1 sec	C
4	Sunset Avenue/Wilson Street	Signal	26.9 sec	C	33.8 sec	C
5	Sunset Avenue/Lincoln Street	Signal	28.7 sec	C	31.6 sec	C
6	8th Street/Wilson Street	Signal	29.4 sec	C	28.1 sec	C
7	8th Street/Lincoln Street	Signal	23.9 sec	C	33.6 sec	C
8	Hargrave Street/Lincoln Street	Signal	23.7 sec	C	33.1 sec	C

Intersections are analyzed using the Highway Capacity Manual (HCM) methodology.
LOS = level of service
sec = seconds

Table 4.6-F: LOS Summary: General Plan Buildout with LOS D Improvements

	Intersection	With LOS D Improvements				
		Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Highland Springs Avenue/Wilson Street	Signal	25.6 sec	C	37.0 sec	D
2	Highland Springs Avenue/Sun Lakes Boulevard	Signal	30.9 sec	C	46.2 sec	D
3	Highland Home Road/Wilson Street	Signal	32.1 sec	C	48.0 sec	D
4	Sunset Avenue/Wilson Street	Signal	29.1 sec	C	54.7 sec	D
5	Sunset Avenue/Lincoln Street	Signal	30.3 sec	C	51.1 sec	D
6	8th Street/Wilson Street	Signal	36.6 sec	D	41.0 sec	D
7	8th Street/Lincoln Street	Signal	24.4 sec	C	36.3 sec	D
8	Hargrave Street/Lincoln Street	Signal	26.5 sec	C	36.2 sec	D

Intersections are analyzed using the Highway Capacity Manual (HCM) methodology.
LOS = level of service
sec = seconds

The City of Beaumont has established LOS D as a target LOS standard and LOS E as a threshold standard (*Circulation Element Policy 10*). Currently, the intersection configuration required to maintain the LOS standard at each location is different for both Cities since the LOS standard is different. The LOS policy change from C to D would make the City of Banning's LOS standard the same as the City of Beaumont. The LOS D standard would then be applicable to all intersections along Highland Springs Avenue (the border between the two cities). The change in LOS policy (from LOS C to LOS D) will result in uniform intersection configuration at intersections along Highland Springs Avenue.

Approval of the LOS D standard would make the City's policy consistent with the County and other jurisdictions in the region. Therefore, the proposed LOS Criteria Change from LOS C to LOS D, once approved, would not exceed the LOS standards established by the County or adjacent jurisdictions. With adoption of the LOS D criteria, impacts related to this threshold are therefore considered less than significant.

I-10/Highland Home Road Interchange Removal. Consistent with the adopted General Plan, the future General Plan Buildout conditions at all study area intersections were analyzed using existing intersection configurations.

The following model runs were obtained from PAM to develop forecast traffic volumes for the General Plan build-out year scenario:

- General Plan Build-Out Year With Highland Home Road Interchange
- General Plan Build-Out Year Without Highland Home Road Interchange

Peak-hour turning movement volumes (a.m. and p.m. peak hours) obtained from the model runs were used to develop turning movement volumes at study intersections for build-out year peak-hour conditions. The model turning movement volumes at some study intersections were adjusted to refine minor discrepancies.

Traffic volumes for the Highland Home Road Overpass Scenario were developed using the traffic volumes from the With Highland Home Road Interchange Scenario. The ramp volumes on the Highland Home Road interchange were reassigned to adjacent ramps (Highland Springs Avenue and Sunset Avenue) while the assignment of north-south through traffic remained unchanged during the conversion (development) of the traffic volume from Interchange Scenario to Overcrossing Scenario.

Existing Conditions: General Plan Buildout With Highland Home Road Interchange. The a.m. and p.m. peak-hour volumes for the adopted General Plan Buildout with I-10/Highland Home Road Interchange conditions are included in the I-10/Highland Home Road Interchange TIA (Appendix B). An LOS analysis was conducted to evaluate the peak-hour traffic operations at the study area intersections. Table 4.6-G summarizes the results of this analysis. The LOS results include traffic demand from complete buildout of the General Plan and existing intersection geometrics.

Table 4.6-G: Intersection LOS Summary: I-10/Highland Home Road Interchange Baseline Conditions

		Baseline				
			AM Peak Hour		PM Peak Hour	
	Intersection	Control	Delay	LOS	Delay	LOS
1	Highland Springs Avenue/Wilson Street	Signal	43.5 sec	D	>80.0 sec	F
2	Highland Springs Avenue/Ramsey Street[1]	Signal	54.0 sec	D	>80.0 sec	F
3	Highland Springs Avenue/I-10 WB Ramps[1]	Signal	49.9 sec	D	42.2 sec	D
4	Highland Springs Avenue/I-10 EB Ramps[1]	Signal	49.7 sec	D	32.1 sec	C
5	Highland Springs Avenue/Sun Lakes Blvd	Signal	24.3 sec	C	>80.0 sec	F
6	Highland Home Road/Wilson Street	TWSC	>50.0 sec	F	>50.0 sec	F
7	Highland Home Road/Ramsey Street[1]	TWSC	>50.0 sec	F	>50.0 sec	F
8	Highland Home Road/Westward Avenue	AWSC	17.6 sec	C	>50.0 sec	F
9	Sunset Avenue/Wilson Street	AWSC	>50.0 sec	F	>50.0 sec	F
10	Sunset Avenue/Ramsey Street[1]	Signal	19.9 sec	B	>80.0 sec	F
11	Sunset Avenue/I-10 WB Ramps[1]	TWSC	>50.0 sec	F	>50.0 sec	F
12	Sunset Avenue/I-10 EB Ramps[1]	TWSC	>50.0 sec	F	>50.0 sec	F
13	Sunset Avenue/Lincoln Street	TWSC	>50.0 sec	F	>50.0 sec	F
14	Sunset Avenue/Westward Avenue	TWSC	12.1 sec	B	11.4 sec	B
15	Highland Home Road/I-10 WB Ramps[1]	Signal	17.6 sec	B	6.1 sec	A
16	Highland Home Road/I-10 EB Ramps[1]	Signal	28.0 sec	C	31.1 sec	C

[1] Intersection with LOS D criteria.
= exceeds City's of level of service (LOS) criteria
AWSC = all-way stop-controlled
Delay is reported in seconds (sec).
EB = eastbound
Intersections are analyzed using the Highway Capacity Manual (HCM) methodology.
N/A = not applicable. Future intersection to be analyzed as part of LOS C and LOS D mitigations.
TWSC = two-way stop controlled
WB = westbound

The traffic study previously prepared for the adopted City General Plan Circulation Element identified improvement measures to improve the deficient study area intersection LOS to LOS C. The current General Plan traffic study lists improvements to the intersection LOS in the General Plan Buildout conditions. Some of these measures have already been implemented, while others will be implemented as development is undertaken in the future. Based on the intersection LOS analysis, the improvement measures required for the General Plan Buildout with I-10/Highland Home Road Interchange and LOS C conditions would result in acceptable LOS C during both peak hours. Table 4.6-H summarizes the results of the analysis. As stated previously, LOS D is considered acceptable at intersections along Ramsey Street and interchange intersections along I-10.

Table 4.6-H: Intersection LOS C Summary: I-10/Highland Home Road Interchange with LOS C Improvements

		With LOS C Improvements				
			AM Peak Hour		PM Peak Hour	
	Intersection	Control	Delay	LOS	Delay	LOS
1	Highland Springs Avenue/Wilson Street	Signal	28.2 sec	C	35.0 sec	C
2	Highland Springs Avenue/Ramsey Street[1]	Signal	35.1 sec	D	45.4 sec	D
3	Highland Springs Avenue/I-10 WB Ramps[1]	Signal	49.9 sec	D	42.2 sec	D
4	Highland Springs Avenue/I-10 EB Ramps[1]	Signal	49.7 sec	D	32.1 sec	C
5	Highland Springs Avenue/Sun Lakes Blvd	Signal	26.6 sec	C	33.4 sec	C
6	Highland Home Road/Wilson Street	Signal	29.8 sec	C	33.1 sec	C
7	Highland Home Road/Ramsey Street[1]	Signal	28.8 sec	C	40.9 sec	D
8	Highland Home Road/Westward Avenue	Signal	30.0 sec	C	32.6 sec	C
9	Sunset Avenue/Wilson Street	Signal	28.5 sec	C	34.3 sec	C
10	Sunset Avenue/Ramsey Street[1]	Signal	24.4 sec	C	43.8 sec	D
11	Sunset Avenue/I-10 WB Ramps[1]	Signal	28.8 sec	C	34.3 sec	C
12	Sunset Avenue/I-10 EB Ramps[1]	Signal	28.7 sec	C	30.8 sec	C
13	Sunset Avenue/Lincoln Street	Signal	27.5 sec	C	29.3 sec	C
14	Sunset Avenue/Westward Avenue	TWSC	12.1 sec	B	11.4 sec	B
15	Highland Home Road/I-10 WB Ramps[1]	Signal	17.6 sec	B	6.1 sec	A
16	Highland Home Road/I-10 EB Ramps[1]	Signal	28.0 sec	C	31.1 sec	C

[1] Intersection with LOS D criteria.
AWSC = all-way stop-controlled
Delay is reported in seconds (sec).
EB = eastbound
Intersections are analyzed using the Highway Capacity Manual (HCM) methodology.
LOS = level of service
TWSC = two-way stop controlled
WB = westbound

Proposed I-10/Highland Home Road Overcrossing Conditions (LOS D). The proposed project includes replacement of the I-10/Highland Home Road interchange with an overcrossing and adoption of LOS D as the acceptable LOS criteria. Therefore, an LOS analysis was conducted for these conditions to evaluate the peak-hour traffic operations at the study area intersections. The peak-hour volumes for General Plan Buildout with Highland Home Road Overcrossing conditions and LOS D are included in the I-10/Highland Home Road Interchange TIA (Appendix B). Table 4.6-I summarizes the results of this analysis. As shown in this table, all study area intersections will exceed LOS thresholds, with the exception of Sunset Avenue/Westward Avenue.

Table 4.6-I: Intersection LOS Summary: Highland Home Road Overcrossing Baseline Conditions

		Baseline				
			AM Peak Hour		PM Peak Hour	
	Intersection	Control	Delay	LOS	Delay	LOS
1	Highland Springs Avenue/Wilson Street	Signal	77.1 sec	E	>80.0 sec	F
2	Highland Springs Avenue/Ramsey Street[1]	Signal	>80.0 sec	F	>80.0 sec	F
3	Highland Springs Avenue/I-10 WB Ramps[1]	Signal	>80.0 sec	F	77.1 sec	E
4	Highland Springs Avenue/I-10 EB Ramps[1]	Signal	>80.0 sec	F	>80.0 sec	F
5	Highland Springs Avenue/Sun Lakes Blvd	Signal	27.4 sec	C	>80.0 sec	F
6	Highland Home Road/Wilson Street	TWSC	>50.0 sec	F	>50.0 sec	F
7	Highland Home Road/Ramsey Street[1]	TWSC	>50.0 sec	F	>50.0 sec	F
8	Highland Home Road/Westward Avenue	AWSC	42.2 sec	E	>50.0 sec	F
9	Sunset Avenue/Wilson Street	AWSC	>50.0 sec	F	>50.0 sec	F
10	Sunset Avenue/Ramsey Street[1]	Signal	>80.0 sec	F	>80.0 sec	F
11	Sunset Avenue/I-10 WB Ramps[1]	TWSC	>50.0 sec	F	>50.0 sec	F
12	Sunset Avenue/I-10 EB Ramps[1]	TWSC	>50.0 sec	F	>50.0 sec	F
13	Sunset Avenue/Lincoln Street	TWSC	>50.0 sec	F	>50.0 sec	F
14	Sunset Avenue/Westward Avenue	TWSC	11.8 sec	B	10.4 sec	B

[1] Intersection with LOS D criteria.
= exceeds City's of level of service (LOS) criteria
AWSC = all-way stop-controlled
Delay is reported in seconds (sec).
EB = eastbound
Intersections are analyzed using the Highway Capacity Manual (HCM) methodology.
TWSC = two-way stop controlled
WB = westbound

At any intersection that is projected to operate at an unsatisfactory LOS, the City requires that improvements be identified to maintain conformance with LOS standards. Therefore, based on the intersection LOS analysis, improvement measures required for the General Plan Buildout with I-10/ Highland Home Road Overcrossing conditions and LOS D were developed. The improvement measures would result in acceptable LOS D during both peak hours. Table 4.6-J summarizes the results of the analysis.

Table 4.6-J: Intersection LOS Summary Highland Home Road Overcrossing with LOS D Improvements

		With LOS D Improvements				
			AM Peak Hour		PM Peak Hour	
	Intersection	Control	Delay	LOS	Delay	LOS
1	Highland Springs Avenue/Wilson Street	Signal	31.4 sec	C	41.7 sec	D
2	Highland Springs Avenue/Ramsey Street[1]	Signal	34.2 sec	C	39.6 sec	D
3	Highland Springs Avenue/I-10 WB Ramps[1]	Signal	47.7 sec	D	32.4 sec	C
4	Highland Springs Avenue/I-10 EB Ramps[1]	Signal	52.6 sec	D	54.4 sec	D
5	Highland Springs Avenue/Sun Lakes Blvd	Signal	26.3 sec	C	42.6 sec	D
6	Highland Home Road/Wilson Street	Signal	33.1 sec	C	40.8 sec	D
7	Highland Home Road/Ramsey Street[1]	Signal	24.3 sec	C	39.9 sec	D
8	Highland Home Road/Westward Avenue	Signal	31.0 sec	C	44.0 sec	D
9	Sunset Avenue/Wilson Street	Signal	28.8 sec	C	43.9 sec	D
10	Sunset Avenue/Ramsey Street[1]	Signal	35.4 sec	D	45.5 sec	D
11	Sunset Avenue/I-10 WB Ramps[1]	Signal	50.4 sec	D	28.5 sec	C
12	Sunset Avenue/I-10 EB Ramps[1]	Signal	40.5 sec	D	43.1 sec	D
13	Sunset Avenue/Lincoln Street	Signal	31.0 sec	C	39.5 sec	D
14	Sunset Avenue/Westward Avenue	TWSC	11.8 sec	B	10.4 sec	B

[1] Intersection with LOS D criteria.
AWSC = all-way stop-controlled
Delay is reported in seconds (sec).
EB = eastbound
Intersections are analyzed using the Highway Capacity Manual (HCM) methodology.
LOS = level of service
TWSC = two-way stop controlled
WB = westbound

The improvement measures developed would replace the existing list of roadway improvements contained in the previous traffic study prepared for the adopted General Plan Circulation Element. The improvements required for the General Plan Buildout with the I-10/Highland Home Road Overcrossing under LOS D conditions (the proposed project) are a part of the project and are listed below.

- **Highland Springs Avenue/Wilson Street:** Add a second northbound through lane, a second southbound left-turn lane, a designated southbound right-turn lane, and a second westbound left-turn lane.
- **Highland Springs Avenue/Ramsey Street:** Add a second northbound left-turn lane, a third northbound through lane, a second southbound left-turn lane, a third southbound through lane, and a second westbound left-turn lane.
- **Highland Springs Avenue/I-10 Westbound Ramps:** Convert the existing southbound right-turn lane to a free right-turn lane and add a second westbound right-turn lane.
- **Highland Springs Avenue/I-10 Eastbound Ramps:** Add a second eastbound left-turn lane.
- **Highland Springs Avenue/Sun Lakes Boulevard:** Add a designated northbound right-turn lane, a second southbound left-turn lane, a second westbound left-turn lane, and a second westbound through lane.

- **Highland Home Road/Wilson Street:** Install a traffic signal. Add a second northbound through lane, two southbound left-turn lanes, a second southbound through lane, a designated southbound right-turn lane, a designated eastbound right-turn lane, and a designated westbound right-turn lane.
- **Highland Home Road/Ramsey Street:** Install a traffic signal. Add a northbound left-turn lane, a second northbound through lane, a second southbound left-turn lane, a second southbound through lane, and a designated westbound right-turn lane.
- **Highland Home Road/Westward Avenue:** Install a traffic signal. Add a northbound left-turn lane, a southbound left-turn lane, a second eastbound left-turn lane, a second eastbound through lane, and a second westbound through lane.
- **Sunset Avenue/Wilson Street:** Install a traffic signal. Add two northbound left-turn lanes, a second northbound through lane, a southbound left-turn lane, a second southbound through lane, a designated southbound right-turn lane, an eastbound left-turn lane, a second eastbound through lane, a designated eastbound right-turn lane, a westbound left-turn lane, a second westbound through lane, and a designated westbound right-turn lane.
- **Sunset Avenue/Ramsey Street:** Add a second northbound left-turn lane, a designated northbound right-turn lane, a designated southbound right-turn lane, a designated eastbound right-turn lane, and a designated westbound right-turn lane.
- **Sunset Avenue/I-10 Westbound Ramps:** Install a traffic signal and add a free southbound right-turn lane.
- **Sunset Avenue/I-10 Eastbound Ramps:** Install a traffic signal. Add a southbound left-turn lane and two eastbound left-turn lanes.
- **Sunset Avenue/Lincoln Street:** Install a traffic signal. Add a northbound left-turn lane, a second northbound through lane, a southbound left-turn lane, a second southbound through lane, an eastbound left-turn lane, a second eastbound through lane, a westbound left-turn lane, a second westbound through lane, and a designated westbound right-turn lane.

With adoption of the proposed GPA and the inclusion of the intersection improvements identified above (see also Chapter 3.0, Project Description in this EIR), the project would result in an acceptable LOS during both peak hours. Further, if LOS D is adopted as the acceptable City LOS standard, fewer roadway improvements would be required to improve the intersection deficiencies. In addition, construction of the I-10/Highland Home Road interchange (the current General Plan designated improvement) is not consistent with the recommendations in the PARTNAR or the County of Riverside General Plan, which shows an overcrossing at this location. Therefore, the proposed project's replacement of the interchange with an overcrossing would be consistent with regional transportation planning documents.

For the reasons stated above, the proposed GPA project would not result in an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system, or exceed, a LOS standard established by the County CMA for designated roads or highways. Therefore, impacts would be considered less than significant with adoption of the GPA and the intersection improvements identified as part of the proposed project.

Mitigation Measures. With approval of the GPA and adoption of the roadway improvements included as part of the project, no significant transportation or circulation impacts would occur, and no mitigation measures are required.

4.6.7 Cumulative Impacts

As defined in Section 15130 of the CEQA Guidelines, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects within the cumulative impact area. The proposed GPA project's cumulative study area for traffic and circulation is the City of Banning.

The proposed project includes a change to the acceptable LOS for roadway operating conditions from LOS C to LOS D and replacement of the future designated interchange improvement at the I-10/ Highland Home Road from the Proposed General Plan Street System identified in Exhibit III-6 (shown as Figure 3.3, in Chapter 3.0, Project Description in this EIR) in the Circulation Element, with an overcrossing. The proposed project is an amendment to the General Plan for conditions under the General Plan Buildout Scenario. Therefore, the analysis conducted for the TIAs was a cumulative analysis since it included the buildout conditions of the City as identified in the General Plan. Therefore, the analysis contained throughout this section was a cumulative analysis that considered the effects of all current and probable future projects as identified in the City's General Plan.

With adoption of the LOS D criteria and the inclusion of the intersection improvements identified as part of the proposed project in Chapter 3.0, Project Description of this EIR, the project's traffic impacts are considered less than significant and its contribution to cumulative traffic impacts is considered less than significant.

4.6.8 Level of Significance After Mitigation

The proposed GPA would include adoption of the intersection improvements identified as part of the proposed project. No mitigation is required, and impacts to traffic and circulation as a result of the proposed project are considered less than significant.

5.0 ALTERNATIVES

5.1 INTRODUCTION

5.1.1 Overview

The California Environmental Quality Act (CEQA) requires that an Environmental Impact Report (EIR) include a discussion of reasonable project alternatives that would "feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any significant impacts of the project, and evaluate the comparative merits of the alternatives" (State CEQA Guidelines, Section 15126.6). This chapter identifies potential alternatives to the proposed project and evaluates them, as required by CEQA.

Key provisions of the State CEQA Guidelines on alternatives (Section 15126.6[b] through [f]) are summarized below to explain the foundation and legal requirements for the alternatives analysis in the EIR:

- The discussion of alternatives shall focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives or would be more costly (15126.6[b]);
- The specific alternative of 'no project' shall also be evaluated along with its impact (15126.6[e][1]). The 'no project' analysis shall discuss the existing conditions at the time the Notice of Preparation is published and at the time the environmental analysis is commenced, as well as what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives (15126.6[e][2]);
- The range of alternatives required in an EIR is governed by the 'rule of reason' that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision-making. Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site (or the site is already owned by the proponent) (15126.6[f]);
- For alternative locations, only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR (15126.6[f][2][A]);
- If the lead agency concludes that no feasible alternative locations exist, it must disclose the reasons for this conclusion and should include the reasons in the EIR. For example, in some cases there may

be no feasible alternative locations for a geothermal plant or mining project that must be in close proximity to natural resources at a given location (15126.6[f][2][B]);

- An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative (15126.6[f][3]).

Pursuant to the guidelines stated above, a range of alternatives to the proposed project is considered and evaluated in this EIR. These alternatives were developed in the course of project planning and environmental review and are further described below.

5.2 ALTERNATIVES UNDER CONSIDERATION

Section 21100 of the Public Resources Code (PRC) and Section 15126 of the *CEQA Guidelines* require an EIR to identify and discuss a No Project Alternative and a reasonable range of alternatives to the proposed project that would feasibly attain most of the basic objectives of the project and would avoid or substantially lessen any of the significant environmental impacts. Each alternative must be capable of avoiding or substantially lessening any significant effects of the proposed project. Further, CEQA requires that alternative site(s) be evaluated, if any feasible sites exist, where significant impacts can be lessened.

As discussed in detail in Chapter 4.0 of this EIR, the proposed project does not result in any significant impacts, and no mitigation is required. Because the project is a General Plan Amendment (GPA) and includes analysis for the entire City of Banning (City) under buildout General Plan conditions, alternative locations are not applicable. In addition, since no potentially significant impacts were identified, alternative locations would not serve to reduce or eliminate project impacts. Therefore, an alternative location is not considered a feasible alternative to the proposed project, and an alternative site was not considered as an alternative.

Alternatives to the proposed project that are being considered for analysis in this EIR are outlined below.

- **Alternative 1: No Project/Existing General Plan.** Per *CEQA Guidelines* Section 15126.6 (3), the "no project" alternative could consist of either no change from the existing uses or development into already approved land uses. Because the project is an amendment to the currently adopted General Plan, this alternative assumes the policies related to level of service (LOS) C and the Interstate 10 (I-10)/Highland Home Road interchange would remain unchanged in the Circulation Element of the City's adopted General Plan. This alternative would involve no changes to LOS criteria or future roadway designations.
- **Alternative 2: I-10/Highland Home Road Interchange with LOS D.** This alternative includes the I-10/Highland Home Road interchange, as designated in the adopted General Plan, but requires a GPA to amend the acceptable roadway operating conditions from LOS C to LOS D.
- **Alternative 3: I-10/Highland Home Road Overcrossing with LOS C.** This alternative would require a GPA to remove the designated interchange improvement at I-10/Highland Home Road from the Circulation Element and replace it with an overcrossing. However, this alternative does not include a policy change to the existing LOS roadway operating criteria; LOS C would remain the upper limit of satisfactory operations except for intersections along Ramsey Street and at all I-10 interchange intersections, where LOS D is considered satisfactory.

- **Alternative 4: No I-10/Highland Home Road Connection with LOS D.** This alternative requires a GPA to remove the I-10/Highland Home Road interchange from the Circulation Element of the City's adopted General Plan and to amend the acceptable LOS from LOS C to LOS D for all intersections. Under this alternative, there would be no future roadway connection at the I-10/Highland Home Road location.

For each alternative, the analysis provides the following:

- A description of the alternative
- The impacts of the alternative and significance of those impacts (per the *CEQA Guidelines*, significant effects of an alternative shall be discussed, but in less detail than the significant effects of the project as proposed)
- A comparison of the alternative relative to the proposed project, specifically addressing project objectives, feasibility, the elimination or reduction of impacts, and comparative environmental merits

5.3 PROPOSED PROJECT

A summary of the proposed project and the project objectives are provided in Chapter 3.0 of this EIR, which can be used for reference in evaluating the comparative merits of the alternatives. For a detailed discussion of the proposed project's impacts, refer to Chapter 4.0.

5.3.1 Project Description

The City is proposing to amend the General Plan Circulation Element. The proposed GPA includes a change to the acceptable LOS for roadway operating conditions from LOS C to LOS D. Additionally, the City is proposing to remove the designated interchange improvement at I-10/Highland Home Road from the Proposed General Plan Street System identified in Exhibit III-6 in the Circulation Element. The future extension of Highland Home Road as an overcrossing at the I-10 would replace the interchange in the Circulation Element. Refer to Chapter 3.0, Project Description, for further detailed descriptions of the project characteristics and other actions required as part of the project implementation.

5.3.2 Project Objectives

Each alternative is analyzed to determine whether it achieves the objectives of the proposed project. The objectives for the proposed project include the following:

- Update the City's General Plan Circulation Element to be consistent with adjacent jurisdictions' LOS D standards to more efficiently manage the operation of arterials, particularly where roadways are under multiple local jurisdictions.
- Provide consistency between the City's General Plan Circulation Element and the County's General Plan Circulation Element relative to Highland Home Road/I-10.

5.3.3 Environmental Impacts of the Proposed Project

The analysis contained in the Draft EIR has concluded that there are no potentially significant impacts associated with implementation of the GPA. Because no potentially significant impacts were identified, no mitigation is required.

5.4 ALTERNATIVE 1: NO PROJECT/EXISTING GENERAL PLAN

5.4.1 Description

Consistent with Section 15126.6(e) of the CEQA Guidelines, the No Project/Existing General Plan Alternative is the existing condition of the project site at the time the Notice of Preparation (NOP) was published, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved. This alternative will evaluate circumstances under which the project does not proceed. This alternative assumes that the General Plan Circulation Element would not be amended and that the I-10/Highland Home Road interchange would remain designated as a future improvement. In addition, the City's currently adopted LOS C standard would not be changed, and the roadway improvements associated with the adopted General Plan would continue to be required for the future buildout conditions of the City.

5.4.2 Environmental Analysis

The No Project/Existing General Plan Alternative assumes that the existing General Plan policies and the Proposed General Plan Street System identified in Exhibit III-6 in the Circulation Element would remain unchanged. Because no GPA would occur, Alternative 1 would be consistent with the currently adopted General Plan. Therefore, impacts for this alternative related to consistency with the General Plan are considered less than significant. Although the proposed project requires a GPA, once the proposed project and GPA are approved, the proposed project's impacts related to consistency with planning documents would also be less than significant.

Under Alternative 1 there would be no changes to General Plan buildout impacts related to air quality, cultural resources, greenhouse gas emissions (GHG), land use, noise, or transportation impacts. Similar to the proposed project, impacts associated with all of these environmental topics would be less than significant. However, Alternative 1 would require more future roadway improvements than the proposed project to maintain satisfactory operating conditions under General Plan buildout conditions. These roadway improvements would occur as buildout of the City occurs and as future development requires such improvements to mitigate their traffic impacts. See Section 3.0 for a list of roadway improvements required under the currently adopted General Plan.

5.4.3 Attainment of Project Objectives

The No Project/Existing General Plan Alternative would not achieve the project objectives. The City's Circulation Element would not be updated to be consistent with adjacent jurisdictions' LOS D standards, and there would remain inconsistencies in future roadway improvements, particularly where roadways are under multiple local jurisdictions. Under this alternative, the City's Proposed General Plan Street System identified in Exhibit III-6 in the Circulation Element would remain inconsistent with the County's General Plan Circulation Element relative to the future I-10/Highland Home Road connection.

5.4.4 Conclusion

Alternative 1 would not result in any new physical environmental effects. Similar to the proposed project, impacts associated with all of these environmental topics would be less than significant. However, the project objectives would not be achieved with Alternative 1.

5.5 ALTERNATIVE 2: I-10/HIGHLAND HOME ROAD INTERCHANGE WITH LOS D

5.5.1 Description

Alternative 2 includes the I-10/Highland Home Road interchange, as included in the adopted General Plan, but requires a GPA to amend the acceptable LOS from LOS C to LOS D for all intersections. Under this alternative, the Proposed General Plan Street System identified in Exhibit III-6 in the Circulation Element would remain unchanged. There would still be a GPA required for the text changes to Policies 5 and 6 in the City's General Plan Circulation Element to indicate the change in the acceptable roadway operating conditions from LOS C to LOS D.

The *Traffic Impact Analysis for the Banning General Plan Amendment Removal of Highland Home Road/ Interstate 10 Interchange* (I-10/Highland Home Road Interchange TIA) prepared for the proposed project and contained in Appendix B analyzed the transportation impacts for Alternative 2. The TIA identified specific roadway improvements would be included as part of Alternative 2 in order to maintain the designated LOS standards. Table 5.1 compares the future roadway improvements required for the proposed project to those required for Alternative 2 in order to maintain acceptable LOS conditions under each scenario.

5.5.2 Environmental Analysis

Air Quality.

Construction Impacts. Similar to the proposed project, Alternative 2 is a policy change to the General Plan that does not include any specific construction activities within the City. Therefore, similar to the proposed project, no impacts from emissions as a result of construction activities would occur under Alternative 2, and construction-related impacts would be less than significant.

Long-Term Regional Air Quality Impacts. Neither the proposed project nor Alternative 2 would generate new vehicular traffic trips since neither is a development project that would construct new homes or businesses. The proposed project includes the replacement of the I-10/Highland Home Road interchange with an overcrossing, resulting in redistribution of traffic and a slight reduction in the emissions within the region. Alternative 2 retains the future designated interchange, and regional emissions would therefore be similar to or slightly greater than the proposed project. However, similar to the proposed project, Alternative 2 would not add vehicular trips to the region and therefore would not contribute substantially to regional vehicle emissions; impacts to air quality are considered less than significant for both the proposed project and Alternative 2.

Table 5.1: Comparison of Roadway Improvements – Proposed Project and Alternative 2

Intersection Number	Intersection Name	Proposed Project Roadway Improvements	Alternative 2 Roadway Improvements
1	**Highland Springs Avenue/ Wilson Street**	Add second northbound through lane	Add two northbound through lanes
		Add a second southbound left-turn lane	✓
		Add a designated southbound right-turn lane	N/A
		N/A	Add a third southbound through lane
		Add a second westbound left-turn lane	N/A
2	**Highland Springs Avenue/ Ramsey Street**	Add a second northbound left-turn lane	✓
		Add a third northbound through lane	✓
		Add a second southbound left-turn lane	✓
		Add a third southbound through lane	✓
		N/A	Add a third westbound through lane
		Add a second westbound left-turn lane	N/A
3	**Highland Springs Avenue/I-10 Westbound Ramps**	N/A	N/A
4	**Highland Springs Avenue/I-10 Eastbound Ramps**	N/A	N/A
5	**Highland Springs Avenue/Sun Lakes Boulevard**	N/A	Add a third northbound through lane
		Add a designated northbound right-turn lane	N/A
		Add a second southbound left-turn lane	N/A
		N/A	Add a third southbound through lane
		Add a second westbound left-turn lane	N/A
		Add a second westbound through lane	✓
6	**Highland Home Road/Wilson Street**	Install a traffic signal	✓
		Add second northbound through lane	Add two northbound through lanes
		Add two southbound left-turn lanes	Add a southbound left-turn lane
		Add a second southbound through lane	Add two southbound through lanes
		Add a designated southbound right-turn lane	✓
		Add a designated eastbound right-turn lane	✓
		Add a designated westbound right-turn lane	✓
7	**Highland Home Road/Ramsey Street**	Install a traffic signal	✓
		Add a northbound left-turn lane	Add two northbound left-turn lanes
		Add a second northbound through lane	Add two northbound through lanes
		N/A	Add a designated northbound right-turn lane
		Add a second southbound left-turn lane	✓
		Add a second southbound through lane	Add two southbound through lanes
		Add a designated southbound right-turn lane	✓
		N/A	Add a third eastbound through lane
		N/A	Add a second westbound left-turn lane
		N/A	Add a third westbound through lane

Table 5.1: Comparison of Roadway Improvements – Proposed Project and Alternative 2

Intersection Number	Intersection Name	Proposed Project Roadway Improvements	Alternative 2 Roadway Improvements
8	**Highland Home Road/Westward Avenue**	Install a traffic signal	✓
		Add a northbound left-turn lane	✓
		Add a southbound left-turn lane	✓
		Add a second eastbound left-turn lane	N/A
		Add a second eastbound through lane	✓
		Add a second westbound through lane	✓
9	**Sunset Avenue/Wilson Street**	Install a traffic signal	✓
		Add two northbound left-turn lanes	✓
		Add a second northbound through lane	✓
		Add a southbound left-turn lane	✓
		Add a second southbound through lane	✓
		Add a designated southbound right-turn lane	✓
		Add an eastbound left-turn lane	✓
		Add a second eastbound through lane	✓
		Add a designated eastbound right-turn lane	✓
		Add a westbound left-turn lane	✓
		Add a second westbound through lane	✓
		Add a designated westbound right-turn lane	✓
10	**Sunset Avenue/Ramsey Street**	Add a designated northbound right-turn lane	✓
		Add a designated southbound right-turn lane	✓
		Add a second eastbound left-turn lane	✓
		N/A	Add a third eastbound through lane
		Add a designated eastbound right-turn lane	✓
		N/A	Add a second westbound left-turn lane
		N/A	Add a third westbound through lane
		Add a designated westbound right-turn lane	✓
11	**Sunset Avenue/I-10 Westbound Ramps**	Install a traffic signal	✓
		Add a free southbound right-turn lane	✓
12	**Sunset Avenue/I-10 Eastbound Ramps**	Install a traffic signal	✓
		N/A	Add a designated northbound right-turn lane
		Add a southbound left-turn lane	✓
		Add two eastbound left-turn lanes	✓
13	**Sunset Avenue/Lincoln Street**	Install a traffic signal	✓
		Add a northbound left-turn lane	✓
		Add a second northbound through lane	✓
		Add a southbound left-turn lane	✓
		Add a second southbound through lane	✓
		Add an eastbound left turn lane	✓
		Add a second eastbound through lane	✓
		Add a westbound left-turn lane	✓
		Add a second westbound through lane	✓
		Add a designated westbound right-turn lane	✓

Table 5.1: Comparison of Roadway Improvements – Proposed Project and Alternative 2

Intersection Number	Intersection Name	Proposed Project Roadway Improvements	Alternative 2 Roadway Improvements
14	**8th Street/Wilson Street**	Install a traffic signal	✓
		Add a shared eastbound through/right-turn lane (i.e., conversion of the designated eastbound right-turn lane and widening of the departure leg to accept the eastbound through lane)	✓
		Add a second westbound through lane	✓
15	**8th Street/Lincoln Street**	Install a traffic signal	✓
		Add a northbound left-turn lane	✓
		Add a second northbound through lane	✓
		Add two southbound left-turn lanes	✓
		Add a second southbound through lane	✓
		Add two eastbound left-turn lanes	✓
		Add a second eastbound through lane	✓
		Add a westbound left-turn lane	✓
		Add a second westbound through lane	✓
16	**Hargrave Street/Lincoln Street**	Install a traffic signal	✓
		Add a northbound left-turn lane	✓
		Add a designated northbound right-turn lane	✓
		Add two southbound left-turn lanes	✓
		Add a free southbound right-turn lane	✓
		Add an eastbound left-turn lane	✓
		N/A	Add a second eastbound through lane
		Add a designated eastbound right-turn lane	✓
		Add a westbound left-turn lane	✓
		N/A	Add a second westbound through lane
		Add a free westbound right-turn lane	✓

N/A= Not Applicable

Long-Term Microscale (CO Hot-Spot) Analysis. Localized air quality impacts would occur when emissions from vehicular traffic increase in local areas as a result of a proposed project. The primary mobile source pollutant of local concern is carbon monoxide (CO), which is a direct function of vehicle idling time and, thus, traffic flow conditions. For the proposed project, all CO concentrations at intersections in the study area would be below the federal and State CO standards, and no CO hot-spots would occur. Similarly, because the ambient CO concentrations are much lower than the corresponding federal and State CO standards, the small change in vehicle traffic resulting from LOS D conditions under Alternative 2 is not expected to result in CO levels that exceed the federal or State CO standards. Therefore, impacts on local air quality related to CO for both the proposed project and Alternative 2 are similar and are considered less than significant.

Air Quality Management Plan Consistency. As discussed above, neither the proposed project nor Alternative 2 would generate any emissions that exceed the South Coast Air Quality Management District (SCAQMD) thresholds. Therefore, both the proposed project and Alternative 2 are consistent

with the regional Air Quality Management Plan (AQMP) and have similar, less than significant impacts related to this threshold.

Cultural Resources. There are no potentially significant impacts related to historical, paleontological, or archaeological resources as part of the proposed project or Alternative 2 because both are limited to policy changes to the City's Circulation Element of the General Plan and do not include any grading or excavation activities. Therefore, impacts to cultural resources for Alternative 2 are less than significant, similar to the proposed project.

Greenhouse Gas Emissions. Similar to the proposed project, Alternative 2 would not generate new vehicular traffic trips since it does not involve a development project and it would not construct new homes or businesses. However, there is a possibility that both the proposed project and Alternative 2 would affect the traffic flow within the City, thus resulting in increased vehicle miles traveled (VMT). Therefore, the impact of both scenarios on GHG emissions was calculated using traffic data for the project region.

The proposed project includes the replacement of the I-10/Highland Home Road interchange with an overcrossing, resulting in the redistribution of traffic and small decreases (less than 1 percent) in carbon dioxide (CO_2) emissions within the region when compared to the existing General Plan conditions. Alternative 2 retains the future designated interchange consistent with the existing General Plan, and regional emissions would therefore be similar to or slightly greater than the proposed project. However, similar to the proposed project, Alternative 2 would not add vehicular trips to the region or increase GHG emissions. As a result, impacts related to GHG emissions for Alternative 2 are similar to the project and are considered less than significant.

Land Use. The City's existing LOS policy stated in the City's General Plan Circulation Element, Policy 6, as identified below:

> **Policy 6** The City shall maintain peak hour Level of Service C or better on all local intersections, except those on Ramsey Street and at I-10 interchanges, where Level of Service D or better shall be maintained.

Similar to the proposed project, Alternative 2 would require a GPA to revise Policies 5 and 6 in the City's General Plan Circulation Element in order to allow the acceptable LOS criteria to be changed to LOS D for all intersections in the City. Although both the proposed project and Alternative 2 are inconsistent with the existing General Plan policy, once revisions to policies are approved and the City's General Plan is amended, both the proposed project and Alternative 2 would be consistent with Policies 5 and 6. Like the proposed project, after the approval and discretionary approvals necessary to adopt the GPA, Alternative 2 would be consistent with the applicable goals, policies, and programs in the City's General Plan. Therefore, similar to the proposed project, land use impacts for Alternative 2 are less than significant.

Noise.

Short-Term Construction Noise Impacts. Alternative 2, like the proposed project, does not include any specific construction activities within the City. Therefore, no short-term noise impacts from construction would occur for either the project or Alternative 2, and impacts for both scenarios are less than significant.

Long-Term Traffic Noise Impacts. Similar to the proposed project, Alternative 2 does not generate new vehicular traffic trips since it would not construct new homes or businesses. However, there is a possibility that the project would affect the traffic flow within the City. The Noise Impact Assessment (Appendix D) concluded that the long-term noise level increases resulting from the proposed project are considered small and not perceptible by the human ear. Further, there were no changes in ADT between LOS C and LOS D conditions. Therefore, Alternative 2 (which includes only the LOS policy change) would not result in any significant long-term noise level increases, similar to the proposed project. Long-term traffic noise impacts for both the project and Alternative 2 would be considered less than significant.

Long-Term Operational Noise Impacts. Similar to the proposed project, Alternative 2 does not include construction of any specific developments within the City. Therefore, long-term operational noise impacts for either the proposed project or Alternative 2 are not anticipated, and no mitigation measures are required.

Traffic. An LOS analysis was conducted for the proposed project and Alternative 2 to evaluate a.m. and p.m. peak-hour traffic operations at the study area intersections. At any intersection that is projected to operate at an unsatisfactory LOS, the City requires that improvements be identified to maintain conformance with LOS standards. Roadway improvements that would be required for Alternative 2 are listed in Table 5.1, above. As indicated in the LOS analysis for Alternative 2 contained in Table 5.2, the inclusion of these roadway improvements would result in acceptable LOS D during both peak hours for this alternative. Similar to the proposed project, these improvements would be incorporated into the alternative to ensure that intersections would operate at an acceptable LOS during both peak hours, resulting in less than significant impacts. However, Alternative 2 requires more future roadway improvements for the General Plan buildout conditions than the proposed project. Therefore, impacts related to future General Plan buildout improvements are greater for Alternative 2 than for the proposed project.

Approval of the LOS D standard under Alternative 2 would make the City's policy consistent with the County and other jurisdictions in the region, similar to the proposed project. Therefore, the proposed LOS criteria change for Alternative 2 from LOS C to LOS D, once approved, would not exceed the LOS standards established by the County or adjacent jurisdictions. With inclusion of the required roadway improvements, LOS impacts for both the proposed project and Alternative 2 are similar and are considered less than significant.

Table 5.2: Intersection LOS D Summary With I-10/Highland Home Road Interchange

	Intersection	With LOS D Improvements				
		Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Highland Springs Avenue/Wilson Street	Signal	31.6 sec	C	39.6 sec	D
2	Highland Springs Avenue/Ramsey Street[1]	Signal	35.1 sec	D	45.4 sec	D
3	Highland Springs Avenue/I-10 WB Ramps[1]	Signal	49.9 sec	D	42.2 sec	D
4	Highland Springs Avenue/I-10 EB Ramps[1]	Signal	49.7 sec	D	32.1 sec	C
5	Highland Springs Avenue/Sun Lakes Blvd	Signal	29.2 sec	C	52.7 sec	D
6	Highland Home Road/Wilson Street	Signal	36.9 sec	D	45.8 sec	D
7	Highland Home Road/Ramsey Street[1]	Signal	28.8 sec	C	40.9 sec	D
8	Highland Home Road/Westward Avenue	Signal	29.9 sec	C	42.5 sec	D
9	Sunset Avenue/Wilson Street	Signal	29.0 sec	C	49.9 sec	D
10	Sunset Avenue/Ramsey Street[1]	Signal	24.4 sec	C	43.8 sec	D
11	Sunset Avenue/I-10 WB Ramps[1]	Signal	28.8 sec	C	34.3 sec	C
12	Sunset Avenue/I-10 EB Ramps[1]	Signal	28.7 sec	C	30.8 sec	C
13	Sunset Avenue/Lincoln Street	Signal	29.7 sec	C	37.5 sec	D
14	Sunset Avenue/Westward Avenue	TWSC	12.1 sec	B	11.4 sec	B
15	Highland Home Road/I-10 WB Ramps[1]	Signal	17.6 sec	B	6.1 sec	A
16	Highland Home Road/I-10 EB Ramps[1]	Signal	28.0 sec	C	31.1 sec	C

Note: Intersections are analyzed using the HCM methodology. Delay is reported in sec.
[1] Intersection with LOS D criteria.
EB = eastbound
HCM = Highway Capacity Manual
I-10 = Interstate 10
LOS = level of service
sec = seconds
TWSC = two-way stop controlled
WB = westbound

5.5.3 Attainment of Project Objectives

Alternative 2 would update the City's Circulation Element to be consistent with adjacent jurisdictions' LOS D standards, and would therefore be consistent with the project's objective to resolve inconsistencies in future roadway improvements, particularly where roadways are under multiple local jurisdictions. However, under this alternative, the City's Proposed General Plan Street System identified in Exhibit III-6 in the Circulation Element would remain inconsistent with the County's General Plan Circulation Element relative to the future I-10/Highland Home Road connection. Therefore, Alternative 2 would meet only one project objective.

5.5.4 Conclusion

Alternative 2 would not result in any new physical environmental effects. Similar to the proposed project, impacts associated with air quality, cultural resources, GHG emissions, land use, noise, and transportation and circulation would be less than significant. However, only one of the project objectives would be achieved with Alternative 2.

5.6 ALTERNATIVE 3: I-10/HIGHLAND HOME ROAD OVERCROSSING WITH LOS C

5.6.1 Description

Alternative 3 includes a GPA to remove the designated interchange improvement at I-10/Highland Home Road from the Proposed General Plan Street System identified in Exhibit III-6 in the Circulation Element and replace it with an overcrossing. However, unlike the proposed project, this alternative does not include a policy change to the existing LOS roadway operating criteria; LOS C would remain the upper limit of satisfactory operations except for intersections along Ramsey Street and at all I-10 interchange intersections, where LOS D is considered satisfactory.

The I-10/Highland Home Road Interchange TIA prepared for the proposed project and contained in Appendix B analyzed the transportation impacts for Alternative 3. The TIA identified specific roadway improvements that would be included as part of Alternative 3 in order to maintain the designated LOS standards. Table 5.3 compares the future roadway improvements required for the proposed project to those required for Alternative 3 in order to maintain acceptable LOS conditions under each scenario. Specific roadway improvements would be included as part of Alternative 3 in order to maintain the designated LOS standards.

5.6.2 Environmental Analysis

Air Quality.

Construction Impacts. Similar to the proposed project, Alternative 3 is a policy change to a future designated roadway in the General Plan that does not include any specific construction activities within the City. Therefore, similar to the proposed project, no impacts from emissions as a result of construction activities would occur under Alternative 3, and construction-related impacts would be less than significant.

Long-Term Regional Air Quality Impacts. Neither the proposed project nor Alternative 3 would generate new vehicular traffic trips since neither is a development project that would construct new homes or businesses. Both the proposed project and Alternative 3 include the replacement of the I-10/Highland Home Road interchange with an overcrossing, resulting in redistribution of traffic and a slight reduction in the emissions within the region. Similar to the proposed project, Alternative 3 would not add vehicular trips to the region and therefore would not contribute substantially to regional vehicle emissions; impacts to air quality are considered less than significant for both the proposed project and Alternative 3.

Long-Term Microscale (CO Hot-Spot) Analysis. Localized air quality impacts would occur when emissions from vehicular traffic increase in local areas as a result of a proposed project. The primary mobile source pollutant of local concern is CO, which is a direct function of vehicle idling time and, thus, traffic flow conditions. For the proposed project, all CO concentrations at intersections in the study area would be below the federal and State CO standards, and no CO hot-spots would occur.

Table 5.3: Comparison of Roadway Improvements – Proposed Project and Alternative 3

Intersection Number	Intersection Name	Proposed Project Roadway Improvements	Alternative 3 Roadway Improvements
1	**Highland Springs Avenue/Wilson Street**	Add second northbound through lane	Add two northbound through lanes
		Add a second southbound left-turn lane	✓
		Add a designated southbound right-turn lane	✓
		Add a second westbound left-turn lane	✓
2	**Highland Springs Avenue/Ramsey Street**	Add a second northbound left-turn lane	✓
		Add a third northbound through lane	✓
		Add a second southbound left-turn lane	✓
		Add a third southbound through lane	✓
		Add a second westbound left-turn lane	✓
3	**Highland Springs Avenue/I-10 Westbound Ramps**	N/A	Convert the existing southbound right-turn lane to a free right-turn lane
		N/A	Add a second westbound right-turn lane
4	**Highland Springs Avenue/I-10 Eastbound Ramps**	N/A	Add a second eastbound left-turn lane
5	**Highland Springs Avenue/Sun Lakes Boulevard**	N/A	Add a third northbound through lane
		Add a designated northbound right-turn lane	✓
		Add a second southbound left-turn lane	✓
		N/A	Add a third southbound through lane
		N/A	Add a designated eastbound right-turn lane
		Add a second westbound left-turn lane	✓
		Add a second westbound through lane	✓
6	**Highland Home Road/Wilson Street**	Install a traffic signal	✓
		N/A	Add a second northbound left-turn lane
		Add second northbound through lane	Add two northbound through lanes
		Add two southbound left-turn lanes	✓
		Add a second southbound through lane	✓
		Add a designated southbound right-turn lane	✓
		Add a designated eastbound right-turn lane	✓
		Add a designated westbound right-turn lane	✓
7	**Highland Home Road/Ramsey Street**	Install a traffic signal	✓
		Add a northbound left-turn lane	✓
		Add a second northbound through lane	✓
		N/A	N/A
		Add a second southbound left-turn lane	✓
		Add a second southbound through lane	✓
		Add a designated southbound right-turn lane	N/A
		N/A	Add a designated westbound right-turn lane
		N/A	Add a third westbound through lane
8	**Highland Home Road/ Westward Avenue**	Install a traffic signal	✓
		Add a northbound left-turn lane	✓
		Add a southbound left-turn lane	✓
		Add a second eastbound left-turn lane	Add two eastbound left-turn lanes
		Add a second eastbound through lane	Add two eastbound through lanes
		Add a second westbound through lane	Add two westbound through lanes

Table 5.3: Comparison of Roadway Improvements – Proposed Project and Alternative 3

Intersection Number	Intersection Name	Proposed Project Roadway Improvements	Alternative 3 Roadway Improvements
9	**Sunset Avenue/ Wilson Street**	Install a traffic signal	✓
		Add two northbound left-turn lanes	✓
		Add a second northbound through lane	✓
		Add a southbound left-turn lane	✓
		Add a second southbound through lane	✓
		Add a designated southbound right-turn lane	✓
		Add an eastbound left-turn lane	✓
		Add a second eastbound through lane	✓
		Add a designated eastbound right-turn lane	✓
		Add a westbound left-turn lane	✓
		Add a second westbound through lane	✓
		Add a designated westbound right-turn lane	✓
10	**Sunset Avenue/ Ramsey Street**	N/A	Add a second northbound left-turn lane
		Add a designated northbound right-turn lane	✓
		Add a designated southbound right-turn lane	✓
		Add a second eastbound left-turn lane	
		Add a designated eastbound right-turn lane	✓
		Add a designated westbound right-turn lane	✓
11	**Sunset Avenue/ I-10 Westbound Ramps**	Install a traffic signal	✓
		Add a free southbound right-turn lane	✓
12	**Sunset Avenue/ I-10 Eastbound Ramps**	Install a traffic signal	✓
		N/A	N/A
		Add a southbound left-turn lane	✓
		Add two eastbound left-turn lanes	✓
13	**Sunset Avenue/ Lincoln Street**	Install a traffic signal	✓
		Add a northbound left-turn lane	✓
		Add a second northbound through lane	✓
		Add a southbound left-turn lane	✓
		Add a second southbound through lane	✓
		N/A	Add a designated southbound right-turn lane
		Add an eastbound left turn lane	Add two eastbound left-turn lanes
		Add a second eastbound through lane	✓
		Add a westbound left-turn lane	✓
		Add a second westbound through lane	✓
		Add a designated westbound right-turn lane	✓
14	**8th Street/ Wilson Street**	Install a traffic signal	✓
		N/A	Add a northbound left-turn lane
		N/A	Add a southbound left-turn lane
		Add a shared eastbound through/right-turn lane (i.e., conversion of the designated eastbound right-turn lane and widening of the departure leg to accept the eastbound through lane)	✓
		Add a second westbound through lane	✓
15	**8th Street/ Lincoln Street**	Install a traffic signal	✓
		N/A	Add a northbound left-turn lane
		Add a second northbound through lane	✓
		Add a designated northbound right-turn lane	✓
		Add two southbound left-turn lanes	✓

Table 5.3: Comparison of Roadway Improvements – Proposed Project and Alternative 3

Intersection Number	Intersection Name	Proposed Project Roadway Improvements	Alternative 3 Roadway Improvements
		Add a second southbound through lane	✓
		Add two eastbound left-turn lanes	✓
		Add a second eastbound through lane	✓
		N/A	Add a designated eastbound right-turn lane
		Add a westbound left-turn lane	✓
		Add a second westbound through lane	✓
16	**Hargrave Street/Lincoln Street**	Install a traffic signal	✓
		Add a northbound left-turn lane	✓
		Add a second northbound through lane	Add designated northbound right-turn lane
		Add two southbound left-turn lanes	✓
		Add a free southbound right-turn lane	✓
		Add an eastbound left-turn lane	✓
		N/A	Add a second eastbound through lane
		Add a designated eastbound right-turn lane	✓
		Add a westbound left-turn lane	✓
		N/A	Add a second westbound through lane
		Add a free westbound right-turn lane	✓

N/A = Not Applicable

Similarly, because the ambient CO concentrations are much lower than the corresponding federal and State CO standards, and because there are no changes in ADT volumes between LOS C and LOS D conditions, Alternative 3 is not expected to result in CO levels that exceed the federal or State CO standards. Therefore, impacts on local air quality related to CO for both the proposed project and Alternative 3 are similar and considered less than significant.

Air Quality Management Plan Consistency. As discussed above, neither the proposed project nor Alternative 3 would generate any emissions that exceed the SCAQMD's thresholds. Therefore, both the proposed project and Alternative 3 are consistent with the regional AQMP and have similar, less than significant impacts related to this threshold.

Cultural Resources. There are no potentially significant impacts related to historical, paleontological, or archaeological resources as part of the proposed project or Alternative 3 because both are limited to policy changes to the City's Circulation Element of the General Plan and do not include any grading or excavation activities. Therefore, impacts to cultural resources for Alternative 3 are less than significant, similar to the proposed project.

Greenhouse Gas Emissions. Similar to the proposed project, Alternative 3 would not generate new vehicular traffic trips since it does not involve a development project and would not construct new homes or businesses. However, there is a possibility that both the proposed project and Alternative 3 would affect the traffic flow within the City due to the replacement of the interchange with an overcrossing, thus resulting in increased VMT. Therefore, the impact of both scenarios on GHG emissions was calculated using traffic data for the project region.

Both the proposed project and Alternative 3 include the replacement of the I-10/Highland Home Road interchange with an overcrossing, resulting in the redistribution of traffic and small decreases (less than 1 percent) in CO_2 emissions within the region when compared to the existing General Plan conditions. Similar to the proposed project, Alternative 3 would not add vehicular trips to the region or increase GHG emissions. As a result, impacts related to GHG emissions for Alternative 3 are similar to the proposed project and are considered less than significant.

Land Use. The future I-10/Highland Home Road interchange is identified on Exhibit III-6 in the Circulation Element and included in Program 4.C and Policy 5, as identified below:

> **Program 4.C:** Aggressively pursue the design and development of interchanges at Highland Home Road and Cottonwood Road (North–South), including all sources of funding, and the coordination of I-10 widening with their installation.
>
> **Policy 5:** Consider amendments to the Highland Home/Highland Springs/18th Street/ Brookside Street configurations based on public safety, design feasibility, and area needs.

Similar to the proposed project, Alternative 3 would require a GPA to revise Exhibit III-6, Program 4.C, and Policy 5 in the City's General Plan Circulation Element in order to replace the future I-10/Highland Home Road interchange with an overcrossing. Although both the proposed project and Alternative 3 are inconsistent with the existing General Plan Program 4.C and Policy 5, once revisions to the program and Exhibit III-6 are approved and the City's General Plan is amended, both the proposed project and Alternative 3 would be consistent with the General Plan. Like the proposed project, after the approval and discretionary approvals necessary to adopt the GPA, Alternative 3 would be consistent with the applicable goals, policies, and programs in the City's General Plan. Therefore, similar to the proposed project, land use impacts for Alternative 3 are considered less than significant.

Noise.

Short-Term Construction Noise Impacts. Alternative 3, like the proposed project, does not include any specific construction activities within the City. Therefore, no short-term noise impacts from construction would occur for either the project or Alternative 3, and impacts for both scenarios are less than significant.

Long-Term Traffic Noise Impacts. Similar to the proposed project, Alternative 3 does not generate new vehicular traffic trips since it would not construct new homes or businesses. However, there is a possibility that the project would affect the traffic flow within the City. The Noise Impact Assessment (Appendix D) concluded that the long-term noise level increases resulting from the proposed project are considered small and not perceptible by the human ear. Further, there were no changes in ADT between LOS C and LOS D conditions. Therefore, Alternative 3 (which retains the LOS C criteria) would not result in any significant long-term noise level increases, similar to the proposed project.

Long-term traffic noise impacts for both the project and Alternative 3 would be considered less than significant.

Long-Term Operational Noise Impacts. Similar to the proposed project, Alternative 3 does not include construction of any specific developments within the City. Therefore, long-term operational noise impacts for either the proposed project or Alternative 3 are not anticipated, and no mitigation measures are required.

Traffic. An LOS analysis was conducted for the proposed project and Alternative 3 to evaluate a.m. and p.m. peak-hour traffic operations at the study area intersections. At any intersection that is projected to operate at an unsatisfactory LOS, the City requires that improvements be identified to maintain conformance with LOS standards. Roadway improvements that would be required for Alternative 3 are listed in Table 5.3. As indicated in the LOS analysis for Alternative 3 contained in Table 5.4, the inclusion of these roadway improvements would result in acceptable LOS during both peak hours for this alternative. Similar to the proposed project, these improvements would be incorporated into the alternative to ensure that intersections would operate at an acceptable LOS during both peak hours, resulting in less than significant impacts. However, Alternative 3 requires more future roadway improvements for the General Plan buildout conditions than the proposed project. Therefore, impacts related to future General Plan buildout improvements are greater for Alternative 3 than for the proposed project.

Table 5.4: Intersection LOS C Summary With Highland Home Road Overcrossing

		With LOS C Improvements				
			AM Peak Hour		PM Peak Hour	
	Intersection	Control	Delay	LOS	Delay	LOS
1	Highland Springs Avenue/Wilson Street	Signal	30.2 sec	C	33. 3 sec	C
2	Highland Springs Avenue/Ramsey Street[1]	Signal	34.2 sec	C	39.6 sec	D
3	Highland Springs Avenue/I-10 WB Ramps[1]	Signal	47.7 sec	D	32.4 sec	C
4	Highland Springs Avenue/I-10 EB Ramps[1]	Signal	52.6 sec	D	54.4 sec	D
5	Highland Springs Avenue/Sun Lakes Blvd	Signal	27.3 sec	C	34.1 sec	C
6	Highland Home Road/Wilson Street	Signal	31.8 sec	C	34.9 sec	C
7	Highland Home Road/Ramsey Street[1]	Signal	24.3 sec	C	39.9 sec	D
8	Highland Home Road/Westward Avenue	Signal	31.6 sec	C	33.1 sec	C
9	Sunset Avenue/Wilson Street	Signal	28.4 sec	C	34.5 sec	C
10	Sunset Avenue/Ramsey Street[1]	Signal	35.4 sec	D	45.5 sec	D
11	Sunset Avenue/I-10 WB Ramps[1]	Signal	50.4 sec	D	28.5 sec	C
12	Sunset Avenue/I-10 EB Ramps[1]	Signal	40.5 sec	D	43.1 sec	D
13	Sunset Avenue/Lincoln Street	Signal	27.7 sec	C	31.8 sec	C
14	Sunset Avenue/Westward Avenue	TWSC	11.8 sec	B	10.4 sec	B

Note: Intersections are analyzed using the Highway Capacity Manual (HCM) methodology. Delay is reported in sec.
[1] Intersection with LOS D criteria.
EB = eastbound
LOS = level of service
sec = seconds
TWSC = two-way stop controlled
WB = westbound

In addition, construction of the I-10/Highland Home Road interchange (the current General Plan designated improvement) is not consistent with the recommendations in the Pass Area Regional Transportation Needs Assessment Report (PARTNAR) or the County of Riverside General Plan, which shows an overcrossing at this location. Both the proposed project and Alternative 3 would correct this inconsistency.

5.6.3 Attainment of Project Objectives

Alternative 3 would update the City's Proposed General Plan Street System identified in Exhibit III-6 in the Circulation Element and replace the future I-10/Highland Home Road interchange with an overcrossing, consistent with the County's General Plan Circulation Element. However, this alternative would not revise the City's Circulation Element to be consistent with adjacent jurisdictions' LOS D standards and would therefore be inconsistent with the project's objective to resolve inconsistencies in future roadway improvements, particularly where roadways are under multiple local jurisdictions. Therefore, Alternative 3 would meet only one project objective.

5.6.4 Conclusion

Alternative 3 would not result in any new physical environmental effects. Similar to the proposed project, impacts associated with air quality, cultural resources, GHG emissions, land use, noise, and transportation and circulation would be less than significant. However, only one of the project objectives would be achieved with Alternative 3.

5.7 ALTERNATIVE 4: NO I-10/HIGHLAND HOME ROAD CONNECTION WITH LOS D

5.7.1 Description

Alternative 4 requires a GPA to remove the I-10/Highland Home Road interchange from the Circulation Element of the City's adopted General Plan and to amend the acceptable LOS from LOS C to LOS D for all intersections. Under this alternative, the Proposed General Plan Street System identified in Exhibit III-6 in the Circulation Element would be revised to show no connection at the I-10/Highland Home Road location. However, there would be no change in the designated segments of Highland Home Road north and south of the I-10. There would also be a GPA required for the text changes to Policies 5and 6 in the City's General Plan Circulation Element to indicate the change in the acceptable roadway operating conditions from LOS C to LOS D.

The I-10/Highland Home Road Interchange TIA prepared for the proposed project and contained in Appendix B analyzed the transportation impacts for Alternative 4. The TIA identified specific roadway improvements that would be included as part of Alternative 4 in order to maintain the designated LOS standards. Table 5.5 compares the future roadway improvements required for the proposed project to those required for Alternative 4 in order to maintain acceptable LOS conditions under each scenario.

Table 5.5: Comparison of Roadway Improvements – Proposed Project and Alternative 4

Intersection Number	Intersection Name	Proposed Project Roadway Improvements	Alternative 4
1	**Highland Springs Avenue/Wilson Street**	Add second northbound through lane	✓
		Add a second southbound left-turn lane	✓
		Add a designated southbound right-turn lane	✓
		N/A	N/A
		Add a second westbound left-turn lane	✓
2	**Highland Springs Avenue/ Ramsey Street**	Add a second northbound left-turn lane	✓
		Add a third northbound through lane	✓
		Add a second southbound left-turn lane	✓
		Add a third southbound through lane	✓
		Add a second westbound left-turn lane	✓
3	**Highland Springs Avenue/ I-10 Westbound Ramps**	N/A	Convert the existing southbound right-turn lane to a free right-turn lane
		N/A	Add a second westbound right-turn lane
4	**Highland Springs Avenue/ I-10 Eastbound Ramps**	N/A	Add a second southbound left-turn lane
		N/A	Add a second eastbound left-turn lane
5	**Highland Springs Avenue/ Sun Lakes Boulevard**	Add a designated northbound right-turn lane	✓
		Add a second southbound left-turn lane	N/A
		Add a second westbound left-turn lane	✓
		Add a second westbound through lane	✓
6	**Highland Home Road/Wilson Street**	Install a traffic signal	✓
		Add second northbound through lane	✓
		Add two southbound left-turn lanes	✓
		Add a second southbound through lane	✓
		Add a designated southbound right-turn lane	N/A
		Add a designated eastbound right-turn lane	N/A
		Add a designated westbound right-turn lane	✓
7	**Highland Home Road/Ramsey Street**	Install a traffic signal	✓
		Add a northbound left-turn lane	N/A
		Add a second northbound through lane	N/A
		Add a second southbound left-turn lane	N/A
		Add a second southbound through lane	N/A
		Add a designated southbound right-turn lane	N/A
		N/A	Add a designated westbound right-turn lane
8	**Highland Home Road/ Westward Avenue**	Install a traffic signal	✓
		Add a northbound left-turn lane	✓
		Add a southbound left-turn lane	✓
		Add a second eastbound left-turn lane	N/A
		Add a second eastbound through lane	✓
		Add a second westbound through lane	✓
9	**Sunset Avenue/Wilson Street**	Install a traffic signal	✓
		Add two northbound left-turn lanes	✓
		Add a second northbound through lane	✓
		Add a southbound left-turn lane	✓
		Add a second southbound through lane	✓
		Add a designated southbound right-turn lane	✓
		Add an eastbound left-turn lane	Add two eastbound left-turn lanes

Table 5.5: Comparison of Roadway Improvements – Proposed Project and Alternative 4

Intersection Number	Intersection Name	Proposed Project Roadway Improvements	Alternative 4
		Add a second eastbound through lane	✓
		Add a designated eastbound right-turn lane	✓
		Add a westbound left-turn lane	Add two westbound left-turn lanes
		Add a second westbound through lane	✓
		Add a designated westbound right-turn lane	N/A
10	**Sunset Avenue/Ramsey Street**	N/A	Add a second northbound left-turn lane
		Add a designated northbound right-turn lane	✓
		Add a designated southbound right-turn lane	✓
		Add a second eastbound left-turn lane	N/A
		Add a designated eastbound right-turn lane	✓
		N/A	Add a second westbound left-turn lane
		Add a designated westbound right-turn lane	N/A
11	**Sunset Avenue/I-10 Westbound Ramps**	Install a traffic signal	✓
		Add a free southbound right-turn lane	✓
12	**Sunset Avenue/I-10 Eastbound Ramps**	Install a traffic signal	✓
		Add a southbound left-turn lane	✓
		Add two eastbound left-turn lanes	✓
13	**Sunset Avenue/Lincoln Street**	Install a traffic signal	✓
		Add a northbound left-turn lane	✓
		Add a second northbound through lane	✓
		Add a southbound left-turn lane	✓
		Add a second southbound through lane	✓
		Add an eastbound left turn lane	Add two eastbound left-turn lanes
		Add a second eastbound through lane	✓
		Add a westbound left-turn lane	✓
		Add a second westbound through lane	✓
		Add a designated westbound right-turn lane	✓
14	**8th Street/Wilson Street**	Install a traffic signal	✓
		Add a shared eastbound through/right-turn lane (i.e., conversion of the designated eastbound right-turn lane and widening of the departure leg to accept the eastbound through lane)	✓
		Add a second westbound through lane	✓
15	**8th Street/Lincoln Street**	Install a traffic signal	✓
		Add a northbound left-turn lane	✓
		Add a second northbound through lane	✓
		Add two southbound left-turn lanes	✓
		Add a second southbound through lane	✓
		Add two eastbound left-turn lanes	✓
		Add a second eastbound through lane	✓
		Add a westbound left-turn lane	✓
		Add a second westbound through lane	✓

Table 5.5: Comparison of Roadway Improvements – Proposed Project and Alternative 4

Intersection Number	Intersection Name	Proposed Project Roadway Improvements	Alternative 4
16	**Hargrave Street/Lincoln Street**	Install a traffic signal	✓
		Add a northbound left-turn lane	✓
		Add a designated northbound right-turn lane	✓
		Add two southbound left-turn lanes	✓
		Add a free southbound right-turn lane	✓
		Add an eastbound left-turn lane	✓
		Add a designated eastbound right-turn lane	✓
		Add a westbound left-turn lane	✓
		Add a free westbound right-turn lane	✓

N/A = Not Applicable

5.7.2 Environmental Analysis

Air Quality.

Construction Impacts. Similar to the proposed project, Alternative 4 is a policy change to the General Plan that does not include any specific construction activities within the City. Therefore, similar to the proposed project, no impacts from emissions as a result of construction activities would occur under Alternative 4, and construction-related impacts would be less than significant.

Long-Term Regional Air Quality Impacts. Neither the proposed project nor Alternative 4 would generate new vehicular traffic trips since neither is a development project that would construct new homes or businesses. The proposed project includes replacement of the I-10/Highland Home Road interchange with an overcrossing, resulting in redistribution of traffic and a slight reduction in the emissions within the region. Similarly, Alternative 4 would also result in a redistribution of traffic since there would be no connection at the I-10/Highland Home Road location. As indicated in Table 5.6, regional emissions under Alternative 4 (No Highland Home Road connection) would also result in a slight reduction in the emissions within the region, and even fewer regional emissions than the proposed project. Therefore, impacts to air quality are considered less than significant for both the proposed project and Alternative 4, but slightly less under Alternative 4.

Long-Term Microscale (CO Hot-Spot) Analysis. Localized air quality impacts would occur when emissions from vehicular traffic increase in local areas as a result of a proposed project. The primary mobile source pollutant of local concern is CO, which is a direct function of vehicle idling time and, thus, traffic flow conditions. For the proposed project, all CO concentrations at intersections in the study area would be below the federal and State CO standards, and no CO hot-spots would occur. Similarly, because the ambient CO concentrations are much lower than the corresponding federal and State CO standards, the small change in vehicle traffic resulting from the LOS D conditions under Alternative 4 is not expected to result in CO levels that exceed the federal or State CO standards. Therefore, impacts on local air quality related to CO for both the proposed project and Alternative 4 are similar and considered less than significant.

Table 5.6: Long-Term Regional Emissions

Source	Pollutant Emissions, lbs/day					
	ROG	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Existing General Plan	5.2	24.8	103.7	0.6	5.3	3.4
General Plan Amendment – Highland Home Road Overcrossing	5.2	24.7	103.2	0.6	5.3	3.4
Increase in Emissions – Overcrossing	**0.0**	**-0.1**	**-0.5**	**0.0**	**0.0**	**0.0**
General Plan Amendment – No Highland Home Road Connection	5.1	24.5	102.7	0.6	5.3	3.4
Increase in Emissions – No Road	**-0.1**	**-0.3**	**-1.0**	**0.0**	**0.0**	**0.0**
SCAQMD Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Significant?	**No**	**No**	**No**	**No**	**No**	**No**

Source: LSA Associates, Inc., September 2012.
CO = carbon monoxide
lbs/day = pounds per day
NO_x = oxides of nitrogen
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
ROG = reactive organic gases
SCAQMD = South Coast Air Quality Management District
SO_x = sulfur oxides

Air Quality Management Plan Consistency. As discussed above, neither the proposed project nor Alternative 4 would generate any emissions that exceed the SCAQMD's thresholds. Therefore, both the proposed project and Alternative 4 are consistent with the regional AQMP and have similar, less than significant impacts related to this threshold.

Cultural Resources. There are no potentially significant impacts related to historical, paleontological, or archaeological resources as part of the proposed project or Alternative 4 because both are limited to policy changes to the City's Circulation Element of the General Plan and do not include any grading or excavation activities. Therefore, impacts to cultural resources for Alternative 4 are less than significant, similar to the proposed project.

Greenhouse Gas Emissions. Similar to the proposed project, Alternative 4 would not generate new vehicular traffic trips since it does not involve a development project and it would not construct new homes or businesses. However, there is a possibility that both the proposed project and Alternative 4 would affect the traffic flow within the City, thus resulting in increased VMT. Therefore, the impact of both scenarios on GHG emissions was calculated using traffic data for the project region.

The proposed project includes the replacement of the I-10/Highland Home Road interchange with an overcrossing, resulting in the redistribution of traffic and small decreases (less than 1 percent) in CO_2 emissions within the region when compared to the existing General Plan conditions. Although Alternative 4 does not include any connection at the I-10/Highland Home Road location, Alternative 4 would not add vehicular trips to the region or increase GHG emissions. The redistribution of traffic under Alternative 4 results in a decrease in CO_2 emissions within the region as compared to both the Existing General Plan and the proposed project (Table 5.7). As a result, impacts related to GHG emissions for Alternative 4 are similar to the project and are considered less than significant.

Table 5.7: Long-Term Regional Greenhouse Gas Emissions

Source	CO_2 Emissions (lbs/day)
Existing General Plan	56,643
General Plan Amendment – Highland Home Road Overcrossing	56,406
Increase in Emissions	**-237**
General Plan Amendment – No Highland Home Road Connection	56,134
Increase in Emissions	**-509**

Source: LSA Associates, Inc., September 2012.
CO_2 = carbon dioxide
lbs/day = pounds per day

Land Use. The future I-10/Highland Home Road interchange is identified on Exhibit III-6 in the Circulation Element and included in Program 4.C and Policy 5 of the existing General Plan. In addition, the City's existing LOS policy stated in the City's General Plan Circulation Element, Policy 6, as identified below:

Program 4.C: Aggressively pursue the design and development of interchanges at Highland Home Road and Cottonwood Road (North - South), including all sources of funding, and the coordination of I-10 widening with their installation.

Policy 5: Consider amendments to the Highland Home/Highland Springs/18th Street/Brookside street configurations based on public safety, design feasibility, and area needs.

Policy 6: The City shall maintain peak hour Level of Service C or better on all local intersections, except those on Ramsey Street and at I-10 interchanges, where Level of Service D or better shall be maintained.

Similar to the proposed project, Alternative 4 would require a GPA to revise Policy 6 in the City's General Plan Circulation Element in order to allow the acceptable LOS criteria to be changed to LOS D for all intersections in the City. In addition, Alternative 4 would require a GPA to revise Exhibit III-6 and Program 4.C and Policy 5 in the City's General Plan Circulation Element to remove the future I-10/Highland Home Road Interchange.

Although both the proposed project and Alternative 4 are inconsistent with the existing General Plan Program 4.C and Policies 5 and 6, once revisions to the policies and Exhibit III-6 are approved and the City's General Plan is amended, both the proposed project and Alternative 4 would be consistent with the General Plan. Like the proposed project, after the approval and discretionary approvals necessary to adopt the GPA, Alternative 4 would be consistent with the applicable goals, policies, and programs in the City's General Plan. Therefore, similar to the proposed project, land use impacts for Alternative 4 are considered less than significant.

Noise.

Short-Term Construction Noise Impacts. Alternative 4, like the proposed project, does not include any specific construction activities within the City. Therefore, no short-term noise impacts from construction would occur for either the project or Alternative 4, and impacts for both scenarios are less than significant.

Long-Term Traffic Noise Impacts. Similar to the proposed project, Alternative 4 does not generate new vehicular traffic trips since it would not construct new homes or businesses. However, there is a possibility that the project would affect the traffic flow within the City. The Noise Impact Assessment (Appendix D) concluded that the long-term noise level increases resulting from the proposed project are considered small and not perceptible by the human ear. Further, there were no changes in ADT between LOS C and LOS D conditions. Therefore, although Alternative 4 removes the I-10/Highland Home Road connection, it would not result in any significant long-term noise level increases, similar to the proposed project. Long-term traffic noise impacts for both the project and Alternative 4 would be considered less than significant.

Long-Term Operational Noise Impacts. Similar to the proposed project, Alternative 4 does not include construction of any specific developments within the City. Therefore, long-term operational noise impacts for either the proposed project or Alternative 4 are not anticipated, and no mitigation measures are required.

Traffic. An LOS analysis was conducted for the proposed project and Alternative 4 to evaluate a.m. and p.m. peak-hour traffic operations at the study area intersections. At any intersection that is projected to operate at an unsatisfactory LOS, the City requires that improvements be identified to maintain conformance with LOS standards. Roadway improvements that would be required for Alternative 4 are listed in Table 5.5. As indicated in the LOS analysis for Alternative 4 contained in Table 5.8, the inclusion of these roadway improvements would result in acceptable LOS D during both peak hours for this alternative. Similar to the proposed project, these improvements would be incorporated into the alternative to ensure that intersections would operate at an acceptable LOS during both peak hours, resulting in less than significant impacts. Alternative 4 would not affect the designated segments of Highland Home Road north and south of the I-10. In addition, this EIR does not address the removal of the segment of Highland Home Road north of Sun Lakes Boulevard since it may be required based on future development. Although there would be no improvements associated with the I-10/Highland Home Road because this alternative includes no Highland Home Road connection, Alternative 4 requires more future roadway improvements for the General Plan buildout conditions than the proposed project. Therefore, impacts related to future General Plan buildout improvements are greater for Alternative 4 than for the proposed project.

Similar to the proposed project, approval of the LOS D standard under Alternative 4 would make the City's policy consistent with the County and other jurisdictions in the region. Therefore, the proposed LOS Criteria Change from LOS C to LOS D, once approved, would not exceed the LOS standards established by the County or adjacent jurisdictions. With adoption of the LOS D criteria, impacts for both the proposed project and Alternative 4 are considered less than significant.

Table 5.8: Intersection LOS D Summary With No I-10/Highland Home Road Connection

		With LOS D Improvements				
			AM Peak Hour		PM Peak Hour	
	Intersection	Control	Delay	LOS	Delay	LOS
1	Highland Springs Avenue/Wilson Street	Signal	32.0 sec	C	45.9 sec	D
2	Highland Springs Avenue/Ramsey Street[1]	Signal	36.6 sec	D	48.0 sec	D
3	Highland Springs Avenue/I-10 WB Ramps[1]	Signal	54.5 sec	D	38.9 sec	D
4	Highland Springs Avenue/I-10 EB Ramps[1]	Signal	32.7 sec	C	37.9 sec	D
5	Highland Springs Avenue/Sun Lakes Blvd	Signal	25.3 sec	C	41.5 sec	D
6	Highland Home Road/Wilson Street	Signal	33.0 sec	C	46.5 sec	D
7	Highland Home Road/Ramsey Street[1]	Signal	23.4 sec	C	45.2 sec	D
8	Highland Home Road/Westward Avenue	Signal	25.9 sec	C	48.6 sec	D
9	Sunset Avenue/Wilson Street	Signal	28.2 sec	C	41.8 sec	D
10	Sunset Avenue/Ramsey Street[1]	Signal	30.4 sec	C	48.5 sec	D
11	Sunset Avenue/I-10 WB Ramps[1]	Signal	54.3 sec	D	31.1 sec	C
12	Sunset Avenue/I-10 EB Ramps[1]	Signal	43.2 sec	D	51.3 sec	D
13	Sunset Avenue/Lincoln Street	Signal	29.5 sec	C	39.1 sec	D
14	Sunset Avenue/Westward Avenue	TWSC	12.6 sec	B	0.9 sec	B

Note: Intersections are analyzed using the HCM methodology. Delay is reported in sec.
[1] Intersection with LOS D criteria.
EB = eastbound
HCM = Highway Capacity Manual
LOS = level of service
sec = seconds
TWSC = two-way stop controlled
WB = westbound

5.7.3 Attainment of Project Objectives

Alternative 4 would revise the City's Circulation Element to be consistent with adjacent jurisdictions' LOS D standards, and would therefore be consistent with the project's objective to resolve inconsistencies in future roadway improvements, particularly where roadways are under multiple local jurisdictions. However, this alternative would not update the City's Proposed General Plan Street System identified in Exhibit III-6 in the Circulation Element to be consistent with the County's General Plan Circulation Element. Therefore, Alternative 4 would meet only one project objective.

5.7.4 Conclusion

Alternative 4 would not result in any new physical environmental effects. Impacts associated with cultural resources, GHG emissions, land use, noise, and transportation and circulation would be similar to the proposed project and less than significant. However, air quality impacts are considered less for Alternative 4 than for the proposed project because this alternative would result in slightly less regional emissions than the proposed project. Only one of the project objectives would be achieved with Alternative 4.

5.8 IDENTIFICATION OF ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The proposed project and all of the project alternatives are essentially policy changes to the City's General Plan and do not result in any immediate direct physical impacts. The proposed project does not have any potentially significant impacts, and no mitigation is required.

The proposed project and all of the alternatives require a set of future roadway improvements that would be required in order to maintain satisfactory roadway operation conditions. All of the alternatives would require more future roadway improvements under General Plan buildout conditions than the proposed project. All identified roadway improvements would occur as buildout of the City occurs and as future development requires such improvements to mitigate their traffic impacts. Therefore, in regard to future roadway improvements the proposed project is environmentally superior because it requires fewer future improvements under General Plan buildout conditions than any of the Alternatives.

Alternative 4 would not result in any future physical impacts at the I-10/Highland Home Road location and would also result in fewer regional air emissions than the proposed project, making it the environmentally superior alternative. However, Alternative 4, similar to all of the other alternatives, meets only one of the project's objectives; only the proposed project meets both of the project objectives.

The environmental impacts evaluated for each alternative in this section are summarized in Table 5.9. A numerical rating of 1, 2, or 3 was assigned to each topic for each alternative. A rating of 1 indicates that impacts are less than the Proposed Project; a rating of 2 indicates that impacts are similar to the Proposed Project; and a rating of 3 indicates that impacts are greater than the Proposed Project.

Table 5.9: Alternatives Impact Comparison

Issue Topic	Proposed Project	Alternative 1: No Project/ Existing General Plan	Alternative 2: I-10/Highland Home Road Interchange with LOS D	Alternative 3: I-10/Highland Home Road Overcrossing with LOS C	Alternative 4: No 10/Highland Home Road Connection with LOS D
Air Quality	Less than Significant	2	2	2	1
Cultural Resources	Less than Significant	2	2	2	2
Greenhouse Gas Emissions	Less than Significant	2	2	2	2
Land Use	Less than Significant	2	2	2	2
Noise	Less than Significant	2	2	2	2
Traffic and Circulation: Required Improvements	Less than Significant	3	3	3	3
Traffic and Circulation: LOS Impacts	Less than Significant	2	2	2	2
Environmentally Superior Alternative?					**Yes**
Attainment of Project Objectives?	Meets both of the project objectives	Meets one of the project objectives	Meets one of the project objectives	Meets one of the project objectives	Meets one of the project objectives

1 = Impacts are less than the Proposed Project
2 = Impacts are similar to the Proposed Project
3 = Impacts are greater than the Proposed Project
I-10 = Interstate 10
LOS = level of service

6.0 LONG-TERM IMPLICATIONS OF THE PROJECT

6.1 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

The Guidelines for the California Environmental Quality Act (CEQA), Section 15126.2 (c), require that an Environmental Impact Report (EIR) consider and discuss significant irreversible changes that would be caused by implementation of the proposed project to ensure that such changes are justified. The CEQA Guidelines specify that the use of nonrenewable resources during the initial and continued phases of the project should be discussed because a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary and secondary impacts (such as a highway improvement that provides access to a previously inaccessible area) should also be discussed because such changes generally commit future generations to similar uses. Irreversible damage can also result from environmental accidents associated with the project and should be discussed.

The proposed City of Banning Circulation Element General Plan Amendment (GPA) project would include a policy change in regard to the City's adopted roadway level of service (LOS) standards and the replacement of the designated future Highland Home Road/Interstate 10 (I-10) interchange with an overcrossing. Unlike a typical development project, this type of policy change does not have the potential to result in physical changes to a specific project location, but rather is a policy change that would impact the thresholds for analysis of future projects.

Operation of the project would result in a slight increase in traffic delay as compared to existing conditions. As discussed in Chapter 3.0, buildout improvement measures included as part of the project design would reduce project impacts to less than significant levels. No other significant irreversible environmental changes are expected to occur as a result of project implementation.

7.0 MITIGATION MONITORING AND REPORTING PROGRAM

7.1 MITIGATION MONITORING REQUIREMENTS

Public Resources Code Section 21081.6 (enacted by the passage of Assembly Bill 3180) mandates that the following requirements shall apply to all reporting or mitigation monitoring programs:

- The public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation. For those changes that have been required or incorporated into the project at the request of a Responsible Agency or a public agency having jurisdiction by law over natural resources affected by the project, that agency shall, if so requested by the Lead Agency or a Responsible Agency, prepare and submit a proposed reporting or monitoring program.
- The Lead Agency shall specify the location and custodian of the documents or other material that constitute the record of proceedings upon which its decision is based.
- A public agency shall provide that the measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, or other measures. Conditions of project approval may be set forth in referenced documents that address required mitigation measures or, in the case of the adoption of a plan, policy, regulation, or other public project, by incorporating the mitigation measures into the plan, policy, regulation, or project design.
- Prior to the close of the public review period for a Draft Environmental Impact Report (EIR), a Responsible Agency or a public agency having jurisdiction over natural resources affected by the project shall either submit to the Lead Agency complete and detailed performance objectives for mitigation measures that would address the significant effects on the environment identified by the Responsible Agency or agency having jurisdiction over natural resources affected by the project, or refer the Lead Agency to appropriate, readily available guidelines or reference documents. Any mitigation measures submitted to a Lead Agency by a Responsible Agency or an agency having jurisdiction over natural resources affected by the project shall be limited to measures that mitigate impacts to resources that are subject to the statutory authority of and definitions applicable to that agency. Compliance or noncompliance by a Responsible Agency or agency having jurisdiction over natural resources affected by a project with that requirement shall not limit that authority of the Responsible Agency or agency having jurisdiction over natural resources affected by a project, or the authority of the Lead Agency, to approve, condition, or deny projects as provided by this division or any other provision of law.

7.2 MITIGATION MONITORING PROCEDURES

A mitigation monitoring and reporting program must be prepared in compliance with Public Resources Code Section 21081.6 if the proposed project was determined to have potentially significant impacts that would require mitigation measures. However, based on the findings of the Draft EIR, impacts related to air quality, cultural resources, global climate change, land use and planning, noise, and traffic and circulation were determined to have no impacts or less than significant impacts. Therefore, no mitigation measures were required, and the inclusion of a Mitigation Monitoring and Reporting Program (MMRP) table in this EIR is not necessary.

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9.0 REFERENCES

Air quality data. 2008–2010. EPA and ARB Web sites.

California Air Resources Board, Greenhouse Gas Inventory Data - 1990 to 2004. http://www.arb.ca.gov/cc/inventory/data/data.htm. Accessed November 2008.

———. Greenhouse Gas Inventory Data - 1990 to 2004. http://www.arb.ca.gov/cc/inventory/data/data.htm. Accessed September 2010.

———. 2008. http://www.climatechange.ca.gov/inventory/index.html. September.

———. 2008. *Climate Change Proposed Scoping Plan: a Framework for Change*. October.

———. 2007. *Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California Recommended for Board Consideration*. October.

———. 2007. "California Air Resources Board approves tripling of early action measures required under AB 32." News Release 07-46. http://www.arb.ca.gov/newsrel/nr102507.htm. October 25.

California Climate Change Center, 2006. *Our Changing Climate. Assessing the Risks to California.* July.

California Energy Commission (CEC), 2007. Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004 - Final Staff Report, publication # CEC-600-2006-013-SF, Sacramento, CA, December 22, 2006; and January 23, 2007, update to that report.

California Environmental Protection Agency (Cal/EPA). 2006. *Climate Action Team Report to Governor Schwarzenegger and the Legislature*. March.

———. 2006. *Climate Action Team Report to Governor Schwarzenegger and the Legislature*. March.

California State Parks Office of Historic Preservation. http://ohp.parks.ca.gov/default.asp?page_id=21238. Accessed January 2007.

County of Riverside. 2008. County of Riverside General Plan. December.

Intergovernmental Panel on Climate Change (IPCC). 2007. *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the IPCC.*

———. *Climate Change 2007: The Physical Science Basis*, http://www.ipcc.ch.

———. *Climate Change 2007: The Physical Science Basis.* Contribution of Working Group I to the Fourth Assessment Report of the IPCC.

LAN Engineering. 2008. Feasibility Study Highland Home Road/I-10 New Interchange. Prepared for the City of Banning Department of Public Works. February.

LSA Associates, Inc., 2012. Air Quality Analysis. Prepared for the City of Banning Department of Public Works. September.

———. 2012. Noise Impact Assessment. Prepared for the City of Banning Department of Public Works. April.

———. 2012. Senate Bill 18 (SB 18) Consultation for the Circulation Element General Plan Amendment, Memorandum. Prepared for the City of Banning Department of Public Works. March.

———. 2012. Traffic Impact Analysis Banning General Plan Amendment Change in Level of Service Policy. Prepared for the City of Banning Department of Public Works. September.

———. 2012. Traffic Impact Analysis Banning General Plan Amendment Removal of Highland Home Road/Interstate 10 Interchange. Prepared for the City of Banning Department of Public Works. September.

National Park Service, National Register of Historic Places (National Register). http://www.nps.gov/nr/about.htm. Accessed January 2007.

RBF Consulting. 2011. Environmental Impact Report Butterfield Specific Plan. Prepared for Pardee Homes. June.

Riverside Land Information System, accessed April 24, 2012.

Terra Nova Planning & Research, Inc. 2006. City of Banning General Plan. Prepared for the Community Development Department, City of Banning. January.

United Nations Framework Convention on Climate Change (UNFCCC), 2007. *Greenhouse Gas Inventory Data.* Combined total of Annex I and Non-Annex I Country CO_2e Emissions.

United States Environmental Protection Agency (EPA). 2010. The 2010 U.S. Greenhouse Gas Inventory Report. http://www.epa.gov/climatechange/emissions/usinventoryreport.html. Accessed September 2010.

Western Regional Climate Center Web site: www.wrcc.dri.edu.