ENVIRONMENTAL IMPACT REPORT

CITY OF SACRAMENTO
BIKEWAY MASTER PLAN

Lead Agency:

City of Sacramento
1231 I Street, Room 300
Sacramento, CA 95814

DECEMBER 2003

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CITY OF SACRAMENTO
BIKEWAY MASTER PLAN

Prepared For:

City of Sacramento
1231 I Street, Room 300
Sacramento, CA 95814

Prepared By:

Analytical Environmental Services
2021 "N" Street, Suite 200
Sacramento, Ca 95814
Phone (916) 447-3479
Fax (916) 447-1665
www.analyticalcorp.com

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INTRODUCTION

1.1 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT

The City of Sacramento (City) has prepared this Draft Environmental Impact Report (DEIR) to provide the public and interested public agencies with information about the potential environmental effects of the proposed Bikeway Master Plan Amendments (Proposed Project). The Proposed Project includes an amendment to the existing 2010 Sacramento City/County Bikeway Master Plan. The current amendment includes the placement of new alignments throughout the various communities of the City. The Proposed Project also includes the removal of several proposed alignments within the North Natomas Community Plan area.

This DEIR was prepared in compliance with the California Environmental Quality Act (CEQA), the CEQA *Guidelines* (California Code of Regulations [CCR], Title 14), and the City of Sacramento's rules, regulations, and procedures for the implementation of CEQA.

As described in CEQA *Guidelines* Section 15121(a), an EIR is a public information document that assesses potential environmental impacts of the Proposed Project, as well as identifies mitigation measures and alternatives to the Proposed Project that could reduce or avoid adverse environmental impacts. CEQA requires that state and local government agencies consider the environmental consequences of projects over which they have discretionary authority. The EIR is an informational document used in the planning and decision-making process. It is not the intent of an EIR to recommend either approval or denial of a project.

CEQA requires that a Lead Agency neither approve nor carry out a project as proposed unless the significant environmental effects have been reduced to an acceptable level, or unless specific findings are made attesting to the infeasibility of altering the project to reduce or avoid environmental impacts (CEQA *Guidelines*, Sections 15091 and 15092). An acceptable level is defined as eliminating, avoiding, or substantially lessening the significant effects. CEQA also requires that decision-makers balance the benefits of a Proposed Project against its unavoidable environmental risks. If environmental impacts are identified as significant and unavoidable, the project may still be approved if it is demonstrated that social, economic, or other benefits outweigh the unavoidable impacts. The Lead Agency would then be required to state in writing the specific reasons for approving the project based on information presented in the EIR, as well as other information in the record. This process is defined as a "Statement of Overriding Considerations" by the CEQA *Guidelines*, Section 15093.

1.2 TYPE OF ENVIRONMENTAL IMPACT REPORT

This DEIR serves as a Program EIR for the overall Bikeway Master Plan Project. A Program EIR is described in Section 15168 of the CEQA Guidelines. The Program EIR is an informational document designed to provide the basis for the local planning and decision-making process. A Program EIR assesses the impacts of a series of actions that can be characterized as one large project and are related in one of four ways described in Section 15168(a) of the CEQA Guidelines:

- Geographically;
- As logical parts in a chain of contemplated actions;
- In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program; or
- As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

The proposed Bikeway Master Plan Amendments Project is being evaluated under a Program EIR because it consists of a series of development activities within a specified geographic area. Specific development projects within the project site are subject to additional site-specific environmental review in accordance to CEQA Guidelines Section 15168 (c).

This EIR addresses potential impacts, which would logically and foreseeably occur from project implementation. This Program EIR will provide an environmental document that can be used as the basis for additional CEQA documentation for the approval of specific development projects. Project specific environmental analysis of bikeway alignments will be made when detailed project information is developed. For the program level analysis, the basis of the analysis is the project description as presented in **Chapter 3.0** of the EIR.

1.3 EIR ASSUMPTIONS

This DEIR is based on the following general assumptions:

- The Proposed Project will be developed based on the general specifications outlined in *Chapter 3.0, Project Description.*
- Future development in the City of Sacramento will be generally consistent with the City of Sacramento *General Plan*, as well as other City, and state-adopted planning documents.
- The No Project Alternative assumes no development for the existing plus project conditions.

1.4 CEQA EIR PROCESS

1.4.1 LEAD AGENCY/PROJECT SPONSOR

The City of Sacramento is the Lead Agency for preparation of the Bikeway Master Plan Amendments DEIR. Sections 15050 and 15367 of the State CEQA *Guidelines* define the "Lead Agency" as the "public agency that has the principal responsibility for carrying out or approving a project."

Lead Agency Contact Person:

Dana Allen, Associate Planner
City of Sacramento, Planning and Building Department,
Environmental Planning Services
1231 I Street, Room 300
Sacramento, CA 95814
(916) 808-2762

Project Sponsor Contact Person:

Ed Cox, Alternate Modes Coordinator
City of Sacramento
Department of Public Works
1231 I Street, Room 300
Sacramento, CA 95814
(916) 808-8434

1.4.2 INITIAL STUDY

An Initial Study (**Appendix A**) was prepared for the Proposed Project in accordance with CEQA Section 15063. Based on the Initial Study, it was determined that an EIR should be prepared. The issues discussed within this EIR are those that have been identified in the course of extensive review of all potentially significant environmental impacts associated with the Proposed Project.

1.4.3 NOTICE OF PREPARATION

In accordance with Section 15082 of the CEQA *Guidelines*, the City circulated a Notice of Preparation (NOP) for this Draft EIR on May 23, 2003 for a 30-day review period that expired on June 23, 2003. The NOP is presented in **Appendix B**. The NOP was circulated to the public, local, state, and federal agencies, and other interested parties to inform responsible agencies and the public that the Proposed Project could have significant effects on the environment and to solicit their comments. Concerns raised in response to the NOP were considered during preparation of the DEIR and are presented in **Appendix B**.

1.4.4 DRAFT EIR

This document constitutes the DEIR. The DEIR contains a description of the project, description of the environmental setting, identification of project impacts, and mitigation measures for potential impacts found to be significant, as well as an analysis of project alternatives.

1.4.5 PUBLIC REVIEW

This document is being circulated to local, state, and federal agencies and to interested organizations and individuals who may wish to review and comment on the report. Publication of this DEIR marks the beginning of a 45-day public review period. During this review period, written comments will also be received by the City at the following address:

Dana Allen
City of Sacramento, Planning and Building Department,
Environmental Planning Services
1231 I Street, Room 300
Sacramento, CA 95814
dallen@cityofsacramento.org

1.4.6 FINAL EIR AND EIR CERTIFICATION

Written comments received in response to the DEIR will be addressed in the Response to Comments section of the Final EIR, which together with any revisions to the DEIR text, constitutes the Final EIR. The City Council will then review the project, the EIR, and public testimony to decide whether to certify the EIR and approve the project. The City must state in writing reasons for approval if unmitigated significant impacts would result. This document is called the Findings of Fact and Statement of Overriding Considerations, and it must be included in the record of the project approval and mentioned in the Notice of Determination.

1.4.7 MITIGATION MONITORING AND REPORTING PROGRAM

Section 21081.6 of the State Public Resources Code, requires lead agencies to "adopt a reporting and mitigation monitoring and reporting program (MMRP) for the changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment." The MMRP is not required to be included in this DEIR; however, mitigation measures have been clearly identified and presented in language that will facilitate the establishment of the MMRP. Any mitigation measures adopted by the City as conditions of approval for the project will be included in a MMRP to verify compliance. The MMRP will also identify the responsible parties for implementing and for monitoring each mitigation measure.

1.5 TERMINOLOGY

This Draft EIR uses the following terminology to describe environmental effects of the Proposed Project and Alternatives:

- **Significance Criteria:** A set of criteria used by the Lead Agency to determine at what level or "threshold" an impact would be considered significant. Significance criteria used in this EIR include factual or scientific information; regulatory standards of local, state, and federal agencies; and/or guiding and implementing goals and policies identified in local plans.

- **Less Than Significant Impact:** A less than significant impact would cause no substantial change in the environment (no mitigation required).

- **Potentially Significant Impact:** A potentially significant impact may cause a substantial change in the environment; however, additional information is needed regarding the extent of the impact. For CEQA purposes, a potentially significant impact is treated as if it were a significant impact.

- **Significant Impact:** A significant impact would cause a substantial adverse change in the physical conditions of the environment. Significant impacts are identified by the evaluation of project effects using specified significance criteria. Mitigation measures and/or project alternatives are identified to reduce project effects to the environment.

- **Significant and Unavoidable Impact:** A significant and unavoidable impact would result in

a substantial change in the environment that cannot be avoided or mitigated to a less-than-significant level if the project is implemented.

- **Cumulative Significant Impact:** A cumulative significant impact would result in a substantial change in the environment from effects of the project as well as surrounding projects and reasonably foreseeable development in the surrounding area.

1.6 EIR ORGANIZATION

This Draft EIR is organized into nine chapters as described below.

Chapter 1.0, Introduction. This chapter describes the purpose and organization of the EIR and the EIR preparation, review, and certification process.

Chapter 2.0, Executive Summary. A summary of the project description, potential areas of controversy, the significant environmental impacts that would result from project implementation, and mitigation measures proposed to reduce or eliminate those impacts are provided in this chapter, pursuant to CEQA *Guidelines* Section 15123. This chapter also contains a summary of the environmental impacts of the alternatives to the project.

Chapter 3.0, Project Description. *Chapter 3.0* describes project background, outlines project objectives, and summarizes components of the Proposed Project, pursuant to CEQA *Guidelines* Section 15124.

Chapter 4.0, Alternatives to the Proposed Project. *Chapter 4.0* provides descriptions for each of the alternatives to the Proposed Project, pursuant to CEQA *Guidelines* Section 15126.6. These alternatives are analyzed together with the Proposed Project in *Chapter 5.0, Environmental Setting, Impacts, and Mitigation Measures.*

Chapter 5.0, Landuse, Zoning, and Adopted Plans. *Chapter 5.0* provides discussion on pertinent land use policies, local zoning regulations, and other adopted plan policies, which pertain to the Proposed Project and project alternatives.

Chapter 6.0, Environmental Setting, Impacts, and Mitigation Measures. Each environmental issue area describes the existing environmental setting, discusses the environmental impacts associated with project construction and operation, and identifies mitigation measures for the impacts of the Proposed Project, as well as all the alternatives to the Proposed Project, pursuant to CEQA *Guidelines* Sections 15125, 15126 and 15126.6.

Chapter 7.0, CEQA Considerations. *Chapter 7.0* discusses growth-inducing impacts (i.e. the potential for the Proposed Project to induce urban growth and development, pursuant to CEQA *Guidelines* Section 15126(d)), cumulative impacts (i.e. the potential for the Proposed Project and project alternatives to result in cumulative impacts, pursuant to CEQA *Guidelines* Section 15130), significant unavoidable adverse impacts of the Proposed Project and project alternatives, pursuant to CEQA *Guidelines* 15126(b), and the potential secondary impacts that may result from the Proposed Project, pursuant to CEQA *Guidelines* 15126.4 (a)(1)(D), 15358 (a)(2) and 15064 (d).

Chapter 8.0, Report Preparation. *Chapter 8.0* provides the names of City project staff and the EIR authors and consultants, pursuant to CEQA *Guidelines* 15129.

Chapter 9.0, Acronyms. *Chapter 9.0* provides a list of technical terms used, including definitions.

Chapter 10.0, References. *Chapter 10.0* provides a list of reference materials and persons consulted during the preparation of the EIR.

Appendices. The appendices are located at the back of the EIR and are referenced in the Table of Contents.

CHAPTER 2.0

EXECUTIVE SUMMARY

CHAPTER 2.0

EXECUTIVE SUMMARY

2.1 INTRODUCTION

This Chapter provides a summary of the Proposed Project, a summary of the Phase I project components, a summary of the alternatives, and a summary table of the impacts and mitigation measures identified by this analysis.

2.2 GENERAL INFORMATION

2.2.1 PROJECT LOCATION

The Proposed Project consists of amendments to the on- and off- street bikeways throughout the City of Sacramento **(Figure 2-1)**. A map showing the locations of the proposed modifications is presented in **Figure 2-2**. New and/or modified on- and off-street alignments are proposed for the following communities: Airport/Meadowview, College Greens, East City/McKinley Park, North Natomas, South Natomas, South Sacramento, and Tahoe Park.

2.2.2 PROJECT DESCRIPTION

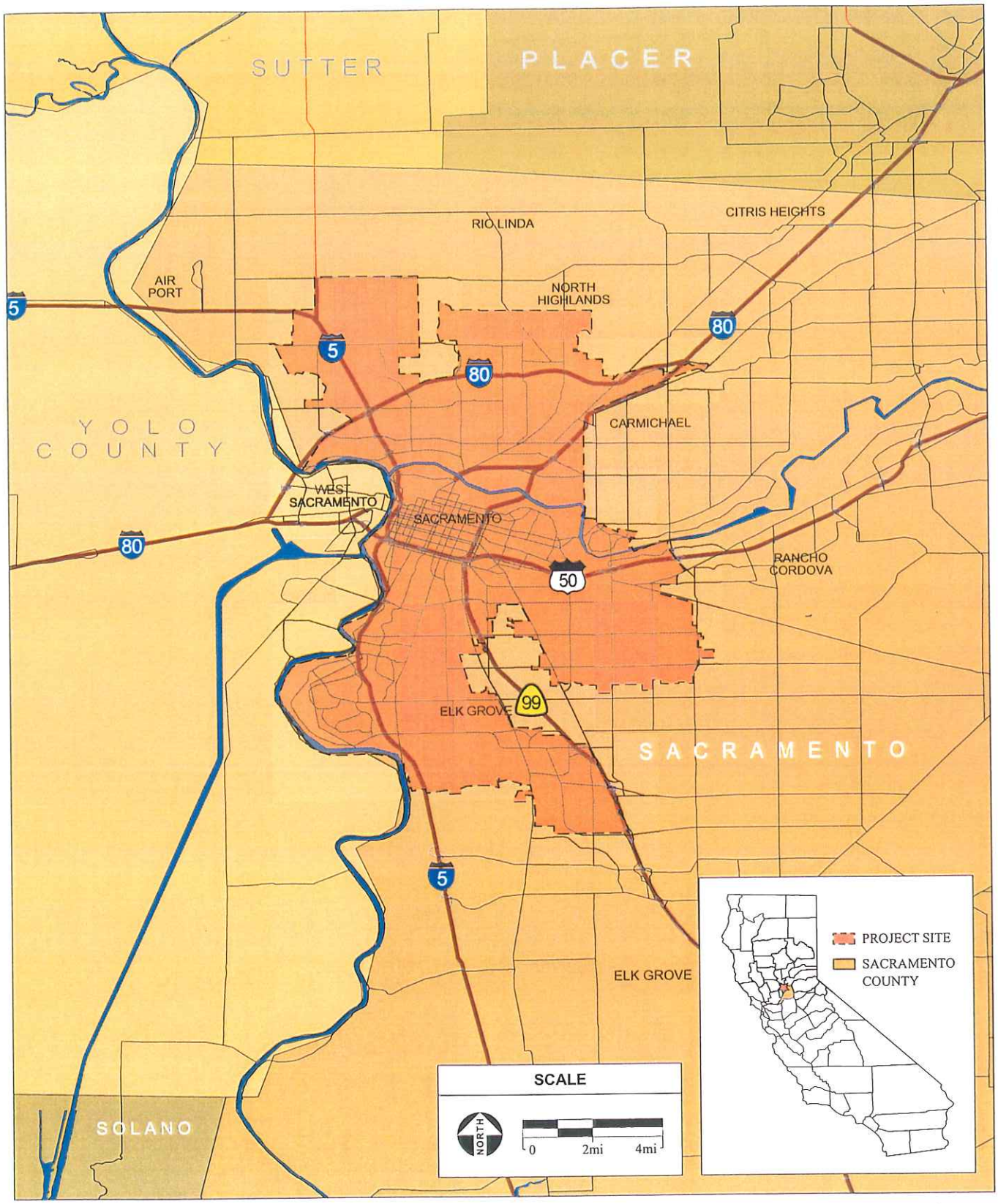
The Proposed Project includes an amendment to the existing 2010 Sacramento City/County Bikeway Master Plan. The current amendment includes the placement of new alignments throughout the various communities of the City. The Proposed Project also includes the removal of several proposed alignments within the North Natomas Community Plan area.

The existing policy framework relating to the establishment, use and maintenance of bikeways established in the 2010 Sacramento City/County Bikeway Master Plan and other City planning documents is assumed to continue with little or no change.

The Proposed Project includes the establishment of new on-and off-street bikeway alignments that builds-on and modifies the existing established system, thereby allowing the City to more fully attain existing bikeway goals and policies. The new or modified alignments may involve crossings of canals, roadways, or other obstacles resulting in potential effects associated with sensitive environmental features (e.g., biological, cultural, traffic, etc.). The alignments proposed are to be considered at the program level. Further refinement of the alignments will occur in the future as funding for individual segments becomes available. As such, current environmental review will be done at the program level, with follow-up detailed environmental review conducted in the future.

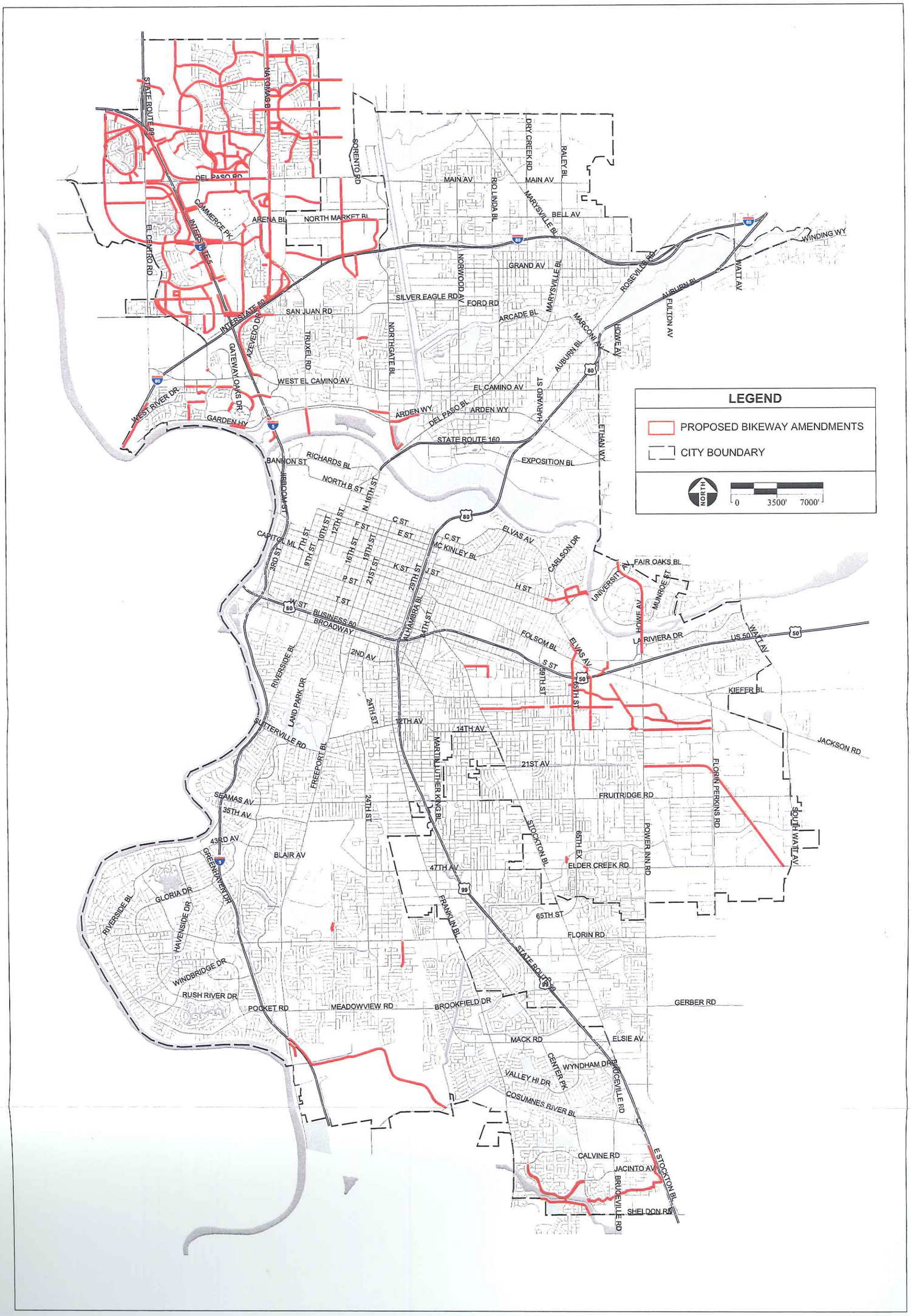
2.2.3 ISSUES TO BE RESOLVED AND AREAS OF CONTROVERSY

In accordance with Section 15082 of the CEQA *Guidelines*, the City circulated a Notice of Preparation (NOP) for this EIR in May 2003, for a 30-day review period. These notices were circulated to the public, local, state, and federal agencies, and other interested parties to inform responsible agencies and the public that the Proposed Project could have significant effects on the



SOURCE: ESRI Data, 2001 ; AES, 2003

Figure 2-1
Regional Location Map



SOURCE: City of Sacramento, 2003 ; AES, 2003

Figure 2-2
Site Plan

environment and to solicit their comments. The NOP and comments received in response to the NOP are presented in **Appendix B**. Issues to be resolved were identified during the initial scoping for the project and anticipated levels of significance were established based on the Sacramento General Plan Update DEIR. An Initial Study, which is included in **Appendix A**, was prepared for the Proposed Project in accordance with CEQA Section 15063. The issues discussed within the EIR are those that have been identified within the Initial Study and the scoping process as having potentially significant impacts. The following environmental resources were found to have the potential of being significantly affected by the Proposed Project and have been addressed in greater detail in the Draft EIR.

1. Land Use Consistency and Compatibility
2. Transportation and Circulation
3. Air Quality
4. Noise/Vibration
5. Biological Resources

Issues that were identified within the Initial Study as being less than significant and which will not be evaluated in the EIR include:

1. Seismicity, Soils and Geology
2. Population / Housing
3. Water
4. Energy
5. Public Services (communication systems)
6. Cultural Resources
7. Hazards
8. Utilities
9. Recreation

Listed below is a summary of issues raised by the public in the response to the NOP. The issues identified below are divided by topic area.

TRANSPORTATION AND CIRCULATION

One comment was in opposition to a bike lane "on South Land Park Drive from Florin Road to Golden Oak Way, to Branwood Way, to Alma Vista and to Pocket Road." The comment suggests that other bikeways throughout the city could adequately meet the needs of the bicycling public without being a potential traffic hazard to other bikeway users and the motoring public. *The bikeway segments mentioned in this comment are not included as proposed amendments to the Bikeway Master Plan and are, therefore, not addressed within this document. For locations of proposed amendments, please refer to Figures 3-1 through 3-8 and Tables 3-1 through 3-8 within Chapter 3.0.*

It was noted that the NOP does not indicate which proposed alignments would be removed, and requests an updated project map. *Please refer to Figure 3-5 and Table 3-5 in Chapter 3.0.*

AIR QUALITY

It was noted that assessing the impacts of air quality effects on bikeway users seems to create a higher hurdle for all bike projects and will delay their implementation and increase their cost. *During the initial scoping process for the Proposed Project, the City identified air quality as a primary issue of concern. Due to this concern, the City felt it was necessary to fully address air quality issues within the EIR.*

NOISE

A comment expressed concern about the precedent setting intent to examine noise impacts of bikeway projects on cyclists. The City also identified noise as a primary issue of concern during the initial scoping process for the Proposed Project and felt it was necessary to fully address this issue within the EIR.

2.3 ALTERNATIVES TO THE PROPOSED PROJECT

2.3.1 ALTERNATIVES TO THE PROPOSED PROJECT

CEQA *Guidelines* (Sections 15126 and 15126.6) requires an EIR to consider a range of alternatives that could feasibly attain the basic objectives of the Proposed Project. This EIR fully evaluates two alternatives to the Proposed Project. Descriptions for each of the alternatives are provided below. Chapter 4.0, Alternatives to the Proposed Project, provides additional information on each of the project alternatives.

ALTERNATIVE A: NO PROJECT ALTERNATIVE (AA)

Under the No Project Alternative, no amendments to the 2010 Sacramento City/County Bikeway Master Plan would be adopted.

ALTERNATIVE B: NATURAL RESOURCE SENSITIVE ALTERNATIVE (AB)

The Natural Resource Sensitive Alternative would remove one proposed amendment in North Natomas and three proposed amendments in South Natomas with the potential to impact natural resources. Potential loss of habitat and impacts to special-status species would be avoided or reduced through this alternative.

2.4 SUMMARY OF ENVIRONMENTAL IMPACTS

Table 2-1 presents a summary of project impacts and proposed mitigation measures that would avoid or minimize potential impacts. In the table, the level of significance of each environmental impact is indicated both before and after the application of the recommended mitigation measure(s). The following abbreviations have been used to identify the Proposed Project and project alternatives:

Proposed Project (PP)

Alternative A (AA)

Alternative B (AB)

For detailed discussions of all project impacts and mitigation measures, the reader is referred to environmental analysis sections in Chapter 6.0, Environmental Setting, Impacts, and Mitigation Measures.

2.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

After reviewing the relative impacts of all alternatives analyzed, the EIR concludes that the No Project Alternative is the environmentally superior alternative. CEQA requires that should the No Project Alternative be the environmentally superior alternative, the EIR must specify a development alternative that is environmentally superior (CEQA *Guidelines* Section 15126.6 (e) (2)). In this case, the EIR finds that Alternative AB – Natural Resource Sensitive Alternative is the environmentally superior alternative. Similar to the Proposed Project, Alternative AB would be located throughout the City of Sacramento. The noise, air quality, and traffic related impacts of the Natural Resource Sensitive Alternative would be similar to the Proposed Project. However, the potential impacts to biological resources would be less than those of the Proposed Project. Potential loss of habitat and impacts to special-status species would be avoided or reduced through this alternative. It should be noted, however, that the Natural Resource Sensitive Alternative would not attain the project objective of developing a bikeway system that will benefit and serve the recreational and transportation needs of the public to the extent of the Proposed Project. In particular, the loss of planned bridge crossings in South Natomas would likely result in a mode shift away from bicycle usage to increased vehicle usage resulting in increased congestion and bicycle travel times. Nevertheless, given the physical environmental impacts addressed within this EIR, Alternative AB is considered the environmentally superior alternative.

TABLE 2-1
Summary of Impacts and Mitigation Measures

	Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
6.2	**Air Quality**			
6.2-1	**Air Quality Impacts on Bikeways Users**			
PP	Adoption of the Proposed Project would result in bikeways in proximity to streets with high volumes of traffic, thereby exposing bicyclists to high CO levels that may exceed state or federal standards, particularly at peak traffic hours. This is considered a less than significant impact.	LTS	None Required.	LTS
AA	This alternative would result in no impacts.	NI	None required.	NI
AB	Same as PP.	LTS	Same as PP.	LTS
6.2-2	**Increase in Construction Emissions of ROG, NOx, and PM10**			
PP	Increase in construction emissions of NOx. This is considered a less than significant impact.	LTS	Construction emission estimates of NOx are less than SMAQMD's significance thresholds. No mitigation required.	LTS
PP	Increase in construction emissions of ROG. This is considered a less than significant impact.	LTS	Construction emission estimates of ROG are less than SMAQMD's significance thresholds. No mitigation required.	LTS
PP	Increase in construction emissions of PM10. This is considered a less than significant impact.	LTS	Construction emission estimates of PM10 are less than SMAQMD's significance thresholds. No mitigation required.	LTS
AA	This alternative would result in no impacts.	NI	None required.	NI
AB	Same as PP.	LTS	Same as PP.	LTS
6.2-3	**Odors from Construction Related Emissions**			
PP	The Proposed Project would result in the generation of odors from construction-related emissions. Improvements,	LTS	None required.	LTS

Less than Significant = LTS Significant = S Significant and Unavoidable = SU No Impact = NI

TABLE 2-1
Summary of Impacts and Mitigation Measures

	Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
	renovations, and new construction will occur as funds become available. The generation of odors from construction related emissions would depend upon the amount and type of construction planned under each phase. This is considered a less than significant impact.			
AA	This alternative would result in no impacts.	NI	None required.	NI
AB	Same as PP.	LTS	Same as PP.	LTS
6.2-4	**Generation of Operational Emissions**			
PP	Adding and removing bikeway alignments will not generate operational emissions as bicycle use is a non-polluting mode of transportation. This would result in no impact.	NI	None required.	NI
AA	This alternative would result in no impacts.	NI	None required.	NI
AB	Same as PP.	NI	Same as PP.	NI
6.3	**Noise and Vibration**			
6.3-1	**Elevated Traffic Noise Levels along Bikeway System**			
PP	According to the general traffic noise estimates traffic noise levels would not exceed the 90 dB level considered to be harmful to hearing at any existing or proposed bikeway system routes. Therefore, this impact is considered less than significant.	LTS	None required.	LTS
AA	This alternative would result in no impacts.	NI	None required.	NI
AB	Same as PP.	LTS	Same as PP.	LTS

Less than Significant = LTS Significant = S Significant and Unavoidable = SU No Impact = NI

TABLE 2-1
Summary of Impacts and Mitigation Measures

	Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
6.3-2	**Construction Noise**			
PP	Activities associated with construction at the project site will result in elevated noise levels in the immediate area. Activities involved in construction would typically generate maximum noise levels ranging from 85 to 90 dB at a distance of 50 feet. Construction activities would be temporary in nature and would likely occur during normal daytime working hours. If construction activities occur outside the hours of Monday through Saturday from 7 am to 6 pm, and on Sunday from 9 am to 6 pm., this would be considered a significant impact.	S	Construction activities should adhere to the requirements of the City and County of Sacramento policies with respect to hours of operation, muffling of internal combustion engines, and other factors which affect construction noise generation and its effects on noise-sensitive land uses.	LTS
AA	This alternative would result in no impacts.	NI	None required.	NI
AB	Same as PP.	S	Same as PP.	LTS
6.4	**Biological Resources**			
6.4-1	**Impacts to Special-Status Species**			
PP	The Proposed Project could potentially result in both direct and indirect impacts to four special-status plant species and 30 special-status animal species outlined in the EIR. Direct impacts could result from the development of off-street bikeways in riparian woodlands, oak woodlands, and wetlands previously identified. The development of bikeways in these areas could potentially require vegetation clearing and the fill of wetlands for bridge crossings. Indirect impacts could include disturbance from construction related activity and from general bikeway usage in certain sensitive areas. Indirect impacts would stem from disturbance to the aforementioned species during the construction and use of the proposed bikeways. The Proposed Project could also result in impacts to nesting birds, which are protected under the Migratory Bird Treaty Act. This is	S	All project related activity in the Natomas Basin shall comply with the conservation measures for special-status species covered by the NBHCP. All project related activity in the North Laguna Creek Wildlife Area shall comply with the mitigation measures outlined in the North Laguna Creek Wildlife Area Bike Trail Initial Study/Mitigated Negative Declaration. The following mitigation measures are recommended to reduce impacts to special status species associated with the Proposed Project. a. Prior to the implementation of the specific amendments to the Bikeway Master Plan, a biological resources assessment shall be conducted for the project specific area to determine the potential for and the presence of special-status species and nesting birds. b. If special-status species are determined to be present within and	LTS

Less than Significant = LTS Significant = S Significant and Unavoidable = SU No Impact = NI

TABLE 2-1
Summary of Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
considered a significant impact.		adjacent to bikeway alignments, measures shall be taken to avoid direct and indirect impacts to these species. These measures could include, but would not be limited to the following: the redesign of bikeway alignments to avoid sensitive areas and timing construction activity to avoid disturbance during nesting and breeding periods.	
		c. If special-status species are determined to be present within and adjacent to bikeway alignments, measures shall be taken to minimize direct and indirect impacts to these species. These measures could include, but would not be limited to the following: the fencing off of sensitive areas during construction activity, worker awareness training, posting signs in sensitive areas educating the public on the presence of sensitive resources, and installing permanent structures to discourage off-trail riding through sensitive areas.	
		d. Survey protocols and mitigation measures for federally and state endangered and threatened species shall follow guidelines developed by USFWS and CDFG for individual species. Applicable protocols and mitigation measures would include, but would not limited to the following: for listed plants - USFWS's Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants; for giant garter snake - USFWS's Guidelines for Restoration and/or Replacement of Giant Garter Snake Habitat and Standard Avoidance and Minimization Measures During Construction Activities in Giant Garter Snake (Thamnophis gigas) Habitat; for Swainson's hawk - CDFG's Staff Report Regarding Mitigation for Impacts to Swainson's Hawks in the Central Valley of California; for valley elderberry long horn beetle - USFWS's Conservation Guidelines for the Valley Elderberry Longhorn Beetle; and for vernal pool crustaceans USFWS's Interim Survey Guidelines to Permitees for Recovery Permits under Section 10(a)(1)(A) of the Endangered Species	

Less than Significant = LTS Significant = S Significant and Unavoidable = SU No Impact = NI

TABLE 2-1
Summary of Impacts and Mitigation Measures

	ENVIRONMENTAL IMPACT	LEVEL OF SIGNIFICANCE BEFORE MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
			Act for the Lister Vernal Pool Branchiopods. e. If nesting birds are determined to be within or immediately adjacent to specific bikeway alignments, construction activity will be delayed until nestlings have fledged.	
AA	This alternative would result in no impacts.	NI	None Required	NI
AB	The Natural Resource Sensitive Alternative could potentially result in indirect impacts to nesting birds in City street trees. Construction activity during periods of nesting could lead to interference with normal behavior and/or nest abandonment. This is considered a significant impact.	S	The following mitigation measures are recommended to reduce impacts to nesting birds associated with the Natural Resource Sensitive Alternative. a. Prior to the implementation of the specific amendments to the Bikeway Master Plan, a biological resources assessment shall be conducted for the project specific area to determine the potential for and the presence of nesting birds. b. If nesting birds are determined to be within or immediately adjacent to specific bikeway alignments, construction activity will be delayed until nestlings have fledged.	LTS
6.4-2	**Impacts to Waters of the U.S.**			
PP	The Proposed Project could potentially result in impacts to Waters of the U.S. These impacts would result from the three proposed bridge crossing of waters under the jurisdiction of the USACE. Indirect impacts to waters of the U.S. could result from incidental fill to waters adjacent to proposed bikeways. The construction of several proposed bikeways on existing levees could result in impacts to water quality and habitat in these features.	S	The following mitigation measures are recommended to reduce impacts to waters of the U.S. associated with the Proposed Project. a. A formal delineation of "Waters of the U.S." occurring within Proposed Project areas should be prepared by a qualified biologist and submitted to the USACE for verification. The appropriate Department of the Army permit should be obtained from the USACE prior to the discharge of any fill material within "Waters of the U.S.". The Proposed Project should comply with any required compensatory mitigation for loss of "Waters of the U.S." b. Water Quality Certification should be obtained from the	LTS

Less than Significant = LTS Significant = S Significant and Unavoidable = SU No Impact = NI

TABLE 2-1
Summary of Impacts and Mitigation Measures

	ENVIRONMENTAL IMPACT	LEVEL OF SIGNIFICANCE BEFORE MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
			Regional Water Quality Control Board prior to development of the Proposed Project areas. c. Prior to any modification of intermittent drainages, formal notification of streambed alteration should be provided to the CDFG and a Streambed Alteration Agreement should be obtained, if required.	
AA	No impact	NI	None required.	NI
AB	No anticipated impact.	LTS	None recommended.	LTS
6.4-3	**Impacts to City Street Trees**			
PP	A "City street tree" is defined as any tree growing on a public street right-of-way. The development of on-street bikeways on existing roads could possibly require road widening, which could result in direct and indirect impacts to City street trees. These impacts could result from construction activities such as curb removal, trenching, and material stockpiling resulting in soil compaction. Any loss of the urban tree canopy in the City would likely result in the following impacts: loss of aesthetic and biological values that trees provide, loss of shade currently shielding residences from summer heat, and loss of nesting habitat for bird species. This is considered a significant impact.	S	The following mitigation measures are recommended to reduce impacts associated with the Proposed Project and the Natural Resource Sensitive Alternative. All Project related activity must comply with the provisions of Sacramento City Codes Chapter 12.56. The following measures should be implemented when working in the immediate vicinity of City street trees. a. An ISA (International Society of Arboriculture) certified arborist shall perform an examination of damage to trees and roots during construction activity. An appraisal of damage will be assessed, and this damage should be mitigated by measures such as planting new trees. Damages will be assessed using the "Guide to Plant Appraisal" ninth edition published by the ISA. b. If the project arborist determines that excavation and/or root severing has weakened the tree or surrounding soil, a safety evaluation will be performed. If the tree is deemed to be unsafe due to possible soil failure and felling of the tree, the	LTS

Less than Significant = LTS Significant = S Significant and Unavoidable = SU No Impact = NI

TABLE 2-1
Summary of Impacts and Mitigation Measures

	ENVIRONMENTAL IMPACT	LEVEL OF SIGNIFICANCE BEFORE MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
			tree may need to be removed. c. All roots shall be cut clean. Any roots greater than 2-inches in diameter require an inspection by an ISA certified arborist prior to severing. Any tree roots to be severed shall be the maximum feasible distance from the trunk. Any roots over one-inch in diameter that are damaged as a result of construction activities shall be traced back and cleanly cut behind any split, cracked, or damaged area. d. Any pruning required for equipment clearance or other construction activities shall be carried out or supervised by an ISA certified arborist. e. The contractor shall be held liable for any damage to existing trees (e.g. trunk wounds, broken limbs, pouring of any deleterious materials or washing out concrete under the drip line of the tree, etc.). The contractor will hire an ISA certified arborist to do the appraisal, submit a report for review by the City Arborist, and mitigate for damages. f. To maintain the aeration and soil conditions under the drip line of the trees, existing unpaved areas between the existing curbs and sidewalks should not be used as areas for the temporary storage of construction related equipment and fill material.	
AA	This alternative would result in no impacts.	NI	None required.	NI
AB	Same as PP.	S	Same as PP.	LTS
6.4-4	**Impacts to City Heritage Trees**			
PP	The development of off-street bikeways in Discovery Park and Natomas Oaks Park in the community of South Natomas could result in direct and indirect impacts to City heritage trees. These	S	All Project related activity must comply with the provisions of Sacramento City Codes Chapter 12.64. The following mitigation is recommended to reduce significant impacts for the Proposed Project.	LTS

Less than Significant = LTS Significant = S Significant and Unavoidable = SU No Impact = NI

TABLE 2-1
Summary of Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
impacts would result from the direct loss of heritage trees through clearing of vegetation for the two proposed bikeways in Discovery Park (South Natomas Amendment #s 8 & 9) and indirect impacts to heritage oaks in Natomas Oaks Park (Amendment # 14) through soil compaction in root zones. The loss of these trees would likely result in the following impacts: loss of aesthetic and biological values that trees provide and loss of nesting habitat for bird species, including special-status species. This is considered a significant impact.		reduce significant impacts for the Proposed Project. a. Prior to construction in areas potentially supporting Heritage Trees, an ISA certified arborist shall conduct an inventory of trees within and adjacent to the bikeway alignment. The bikeway plans and results of the inventory shall be forwarded to the City Arborist for review and comment prior to commencement of construction activities. The plans shall be forwarded to the City Arborist early enough in the design process to assure that suggested changes can be incorporated into the final design. Suggested changes could include reconfiguring alignments in relation to the driplines of heritage trees, pruning recommendations, treatment of soil within and around the dripline of heritage trees, etc. b. Prior to any construction activity, protective fencing shall be installed around the drip lines of adjacent heritage trees. Within the fenced area there shall be no storage of materials or equipment, no parking of vehicles, and no trenching or grade changes. c. All roots shall be cut clean. Any roots greater than 2-inches in diameter require an inspection by an ISA certified arborist prior to severing. d. Any pruning required for building or equipment clearance shall be carried out or supervised by an ISA certified arborist. e. The contractor shall be held liable for any damage to existing trees (e.g. trunk wounds, broken limbs, pouring of any deleterious materials or washing out concrete under the drip line of the tree). Damages will be assessed using the "Guide to Plant Appraisal" ninth edition published by the ISA. The contractor will hire an ISA certified arborist to do the appraisal and submit a report for review by the City Arborist.	

Less than Significant = LTS Significant = S Significant and Unavoidable = SU No Impact = NI

TABLE 2-1
Summary of Impacts and Mitigation Measures

	Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
			f. Any heritage trees that can't be avoided must be permitted by the Director of Parks and Recreation Department for removal, subject to appeal provisions.	
AA	This alternative would result in no impacts.	NI	None required.	NI
AB	No impact.	NI	None required.	LTS
6.5	**Transportation and Safety**			
6.5-1	**Impacts to Bicycle Transportation due to Barriers**			
PP	North Natomas/South Natomas The amended bikeway facilities were analyzed in terms of potential conflicts with barriers, namely I-5, the American River, and various canal and railroad crossings. Various off-street crossings of I-5 and I-80 within North and South Natomas would be dedicated pedestrian/bikeway crossing structures. On-street crossings of I-5 and I-80 within North and South Natomas would be located along future roadways, which would provide class II bikeways with provisions for safe bicycle crossings at freeway ramp intersections. East City/McKinley Park The following location has been identified as being physically constrained by the UP railroad bridge structure: #2 – H Street Crossing - The roadway width through the tunnel beneath the railroad currently does not provide enough width to safely accommodate an unstriped class III bike route. This is considered a significant impact.	S	North Natomas/South Natomas Adequate bicycle access across the American River between Natomas and Downtown Sacramento should be provided. If both proposed amended routes are eliminated, it is recommended that either an alternative direct crossing be established across the river, or that a class I or class II bikeway be provided along as much of the existing route as possible. This route would pass through Discovery Park, with the understanding that bicycles would need to utilize the Jiboom Street Bridge along which only a class III bike route could be designated. East City-McKinley Park #2 – H Street Crossing – Mitigation includes the removal of one westbound lane to accommodate a striped class II bike route. The City of Sacramento is currently evaluating whether both westbound lanes are necessary. The removal of this lane for motorized vehicular travel may shift traffic to another roadway such as J Street. The City of Sacramento shall evaluate the traffic impact that would occur on J Street prior to the development of the H Street bikeway. This segment of bikeway will be constructed only if the resulting traffic study show a less than significant impact on J Street. This segment of bikeway will not be constructed if J Street experiences a	LTS

Less than Significant = LTS Significant = S Significant and Unavoidable = SU No Impact = NI

TABLE 2-1
Summary of Impacts and Mitigation Measures

	Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
			significant impact from the traffic shift.	
AA	This alternative would result in no impacts.	NI	None required.	
AB	South Natomas The alternative recommends the elimination of the following bridges within the South Natomas Community Plan Area which could create a barrier to bicycle transportation: #7 – All weather crossing of Discovery Park parallel to I-5. #9 – New American River crossing at Truxel. The loss of planned bridge crossings would likely result in a mode shift away from bicycle usage to increased vehicle usage resulting in increased congestion and bicycle travel times. East City/McKinley Park #2 – H Street Crossing – See Impact 6.5-1 for PP.	S	See Mitigation 6.5-1 for PP.	LTS
6.5-2	**Impacts to Bicycle Transportation due to Intersection Conflicts**			
PP	Accident potential at any and all major intersections is high, and designs must incorporate adequate design standards as established within the 2010 Sacramento City/County Bikeway Master Plan.	S	South Natomas Designs shall incorporate adequate design standards as established within the 2010 Sacramento City/County Bikeway Master Plan to reduce impacts to less than significant.	LTS
AA	This alternative would result in no impacts.	NI	None required.	NI
AB	Same as PP.	S	Same as PP.	LTS

Less than Significant = LTS Significant = S Significant and Unavoidable = SU No Impact = NI

TABLE 2-1
Summary of Impacts and Mitigation Measures

	Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
6.5-3	**Impacts to Roadways due to Bike Lane Design Conflicts**			
PP	There are no safety related issues related to any of the proposed class I (off-street) bikeways The optimum type of on-street bikeway facility is a dedicated, striped class II bike lane which delineates a separate path of travel for bicycles that separates them from vehicular traffic. Wherever possible, especially along arterial roadways, class II bikeways should be provided. However some of the amendments are located along roadways which are physically constrained by narrow roadway widths or the presence of on-street parking. Those facilities which were identified as being potentially limited to class III bike routes, or those which might be able to provide class II bike lanes with elimination of on-street parking, are listed below. Although bikeways along non-arterial facilities can adequately be designated as class III bike routes, care should be taken when designing the class III facilities to assure they incorporate adequate design standards as established within the 2010 Sacramento City/County Bikeway Master Plan. <u>North Natomas</u> #33 – Street Replaces off-street bikeway (Allegheny) –Will likely be limited to class III due to limited right-of-way and on street parking. Since this roadway is shown to be 2-lane non-arterial roadway on the North Natomas Community Plan (and thus a collector roadway), a class III bike route is adequate. This is considered a less than significant impact. #34 – New Streets with bikeways (Allegheny) –Will likely be limited to class III due to limited right-of-way and on-street parking. Since this roadway is shown to be 2-lane non-arterial	LTS	<u>East City/McKinley Park</u> #2 – H Street Crossing – Mitigation includes the removal of one westbound lane to accommodate a striped class II bike route. The City of Sacramento is currently evaluating whether both westbound lanes are necessary. The removal of this lane for motorized vehicular travel may shift traffic to another roadway such as J Street. The City of Sacramento shall evaluate the traffic impact that would occur on J Street prior to the development of the H Street bikeway. This segment of bikeway will be constructed only if the resulting traffic study show a less than significant impact on J Street. This segment of bikeway will not be constructed if J Street experiences a significant impact from the traffic shift. <u>Tahoe Park</u> Mitigation includes additional study to establish if additional right-of-way can be obtained to provide class II bike lanes while maintaining the center turn lane.	LTS

Less than Significant = LTS Significant = S Significant and Unavoidable = SU No Impact = NI

TABLE 2-1
Summary of Impacts and Mitigation Measures

ENVIRONMENTAL IMPACT	LEVEL OF SIGNIFICANCE BEFORE MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
roadway on the North Natomas Community Plan (and thus a collector roadway), a class III bike route is adequate. This is considered a less than significant impact. #39 – Suggested County Amended Bikeways – The northernmost of the four east-west facilities shown maintains an existing class III bike route. The third of the four will likely be limited to class III due to limited right-of-way and on-street parking. Since these roadways are shown to be 2-lane non-arterial roadways on the North Natomas Community Plan (and thus collector roadways), class III bike routes are adequate. This is considered a less than significant impact. #42 – New Street alignment-Club Center Drive – The section of the project between Northborough Drive and Natomas Boulevard will likely be limited to class III due to limited right-of-way and on-street parking. Since this roadway is shown to be 2-lane non-arterial roadway on the North Natomas Community Plan (and thus a collector roadway), a class III bike route is adequate. This is considered a less than significant impact. (unnumbered) – Banfield Drive - Will likely be limited to class III due to limited right-of-way and on-street parking. Since this roadway is shown to be 2-lane non-arterial roadway on the North Natomas Community Plan (and thus a collector roadway), a class III bike route is adequate. This is considered a less than significant impact. (unnumbered) – Stemmler Drive - Will likely be limited to class III due to limited right-of-way and on-street parking. Since this roadway is shown to be 2-lane non-arterial roadway on the North Natomas Community Plan (and thus a collector roadway), a class III bike route is adequate. This is considered a less than significant impact.			

Less than Significant = LTS Significant = S Significant and Unavoidable = SU No Impact = NI

TABLE 2-1
Summary of Impacts and Mitigation Measures

ENVIRONMENTAL IMPACT	LEVEL OF SIGNIFICANCE BEFORE MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
South Natomas #16 – Venture Oaks Way - Will likely be limited to class III due to limited right-of-way and on-street parking. Since the roadway is not shown to be an arterial roadway on the South Natomas Community Plan (and is thus a collector roadway), a class III bike route is adequate. This is considered a less than significant impact. #17 – Oak Harbor Drive – Maintains an existing class III bike route. Since the roadway is not shown to be an arterial roadway on the South Natomas Community Plan (and is thus a collector roadway), a class III bike route is adequate. This is considered a less than significant impact. #19 – Orchard Lane - Will likely be limited to class III due to limited right-of-way and on-street parking. Since the roadway is not shown to be an arterial roadway on the South Natomas Community Plan (and is thus a collector roadway), a class III bike route is adequate. #20 – Shady Arbor Drive - Will likely be limited to class III due to limited right-of-way and on-street parking. Since the roadway is not shown to be an arterial roadway on the South Natomas Community Plan (and is thus a collector roadway), a class III bike route is adequate. This is considered a less than significant impact. South Sacramento Class II bike lanes could likely be provided on all the proposed amended facilities. There is no impact. Airport/Meadowview #3 – 29th Street, Florin Road to Gardendale Road – Will be limited to class III due to existing improvements with on-street parking. Although class II bike lanes could likely be provided			

TABLE 2-1
Summary of Impacts and Mitigation Measures

ENVIRONMENTAL IMPACT	LEVEL OF SIGNIFICANCE BEFORE MITIGATION	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
with the elimination of on street parking, since the roadway is classified as a collector roadway within the South Sacramento Community Plan, a class III bike route is adequate. This is considered a less than significant impact. East City/McKinley Park #2 – H Street Crossing – The roadway width through the tunnel beneath the railroad currently does not provide enough width to safely accommodate an unstriped class III bike route. This is considered a significant impact. #6 – Camellia/Sandburg/Carlson – Will be limited to class III due to limited right-of-way and on-street parking. Although class II bike lanes could likely be provided with the elimination of on-street parking, a class III bike route is adequate since the roadway is classified as a collector roadway within the South Sacramento Community Plan. This is considered a less than significant impact. College Greens Class II bike lanes could likely be provided on all the proposed amended facilities. There is no impact. Tahoe Park #5 – 65th Street/Elvas Avenue - Class II bike lanes would be possible through most of the length of roadway if the center turn lane were provided. #6 – Redding Avenue – Will be limited to class III along significant portions of its length due to limited right-of-way and on-street parking. Although class II bike lanes could likely be provided with the elimination of on street parking, since the roadway is classified as a collector roadway within the City of			

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TABLE 2-1
Summary of Impacts and Mitigation Measures

	Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
	Sacramento General Plan, a class III bike route is adequate. This is considered a less than significant impact. #8 – Ramona Avenue & #9 – Cucamonga Avenue - Will likely be limited to class III due to limited right-of-way and on-street parking. Although class II bike lanes could likely be provided with the elimination of on-street parking, since the roadways maintain industrial sections (per information provided by the City of Sacramento traffic engineering department), class III bike routes would be adequate. This is considered a less than significant impact. #10 – 8th Avenue – The portion of the project east of 65th Street is San Joaquin Street. Will likely be limited to class III due to limited right-of-way and on-street parking. Although class II bike lanes could likely be provided with the elimination of on street parking, since the roadway is classified as a collector roadway within the City of Sacramento General Plan, a class III bike route is adequate. This is considered a less than significant impact.			
AA	This alternative would result in no impacts.	NI	None required.	NI
AB	See Impact 6.5-3 for PP. Additionally, the elimination of the American River crossings between Natomas and Downtown Sacramento would increase bicycle traffic on the remaining crossings. The existing route passing through Discovery Park, and along Jiboom Street, would experience increased bicycle activity which might not be able to be adequately accommodated by the facilities, portions of which are at present class III facilities, and which would remain class III facilities due to the physical constraints of the roadway. This would not only increase potential vehicle/bicycle conflicts, but also result in undesired mode shifts away form bicycle usage to increased vehicle usage.		Adequate bicycle access across the American River between Natomas and Downtown Sacramento should be provided. If both proposed amended routes are eliminated, recommended mitigation is that either an alternative direct crossing be established across the river, or that a class I or class II bikeway be provided along as much of the existing route as possible passing through Discovery Park and along Jiboom Street, with the understanding that bicycles would need to utilize the Jiboom Street Bridge along which only a class III bike route could be designated.	

TABLE 2-1
Summary of Impacts and Mitigation Measures

	Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 6.5-4	**Impacts to Local and Regional Transportation Plans and Programs**			
PP	None of the bikeway amendments would conflict with any of the capitol improvement projects identified within either the MTP for 2025, or the 2003/05 MTIP. Because a majority of the projects identified would be located within North Natomas, the designs for these facilities incorporate bikeway designs. When the final alignment for the light rail extension from downtown Sacramento to Natomas Town Center is determined, the final design should incorporate elements to provide bike routes with safe crossing points, which minimizes as much as possible the diversion of routes to established crossing points. Some of the bikeway amendments were not specifically called out as bike routes within the individual community plans. Although by definition any proposed projects which vary from a community plan must either be amended or denied, all of the bikeway amendments would promote specific improved circulation characteristics within the communities through provision of commuter bike routes, and provision of local connections between neighborhoods. This is considered a less than significant impact.	LTS	None required.	LTS
AA	This alternative would result in no impacts.	NI	None required.	NI
AB	See Impact 6.5-4 for PP.	LTS	None required.	LTS

Less than Significant = LTS Significant = S Significant and Unavoidable = SU No Impact = NI

TABLE 2-1
Summary of Impacts and Mitigation Measures

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation

Less than Significant = LTS Significant = S Significant and Unavoidable = SU No Impact = NI

CHAPTER 3.0

PROJECT DESCRIPTION

CHAPTER 3.0

PROJECT DESCRIPTION

3.1 PROJECT LOCATION

The Proposed Project consists of amendments to the on- and off- street bikeways throughout the City of Sacramento **(Figure 2-1)**. A map showing the locations of the proposed modifications is presented in **Figure 2-2**. New and/or modified on- and off-street alignments are proposed for the following communities: Airport/Meadowview, College Greens, East City/McKinley Park, North Natomas, South Natomas, South Sacramento, and Tahoe Park.

3.2 PROJECT OBJECTIVES

The goal of this project is to amend the existing 2010 Sacramento City/County Bikeway Master Plan. The current amendment includes the placement of new alignments throughout the various communities of the City, as well as the removal of several proposed alignments within the North Natomas Community Plan area. Project objectives include:

- Consistency of Proposed Project with the goals and policies of other existing plans such as the 2010 Sacramento City/County Bikeway Master Plan, City of Sacramento General Plan, Sacramento River Parkway Plan, and individual community plans including Airport/Meadowview Community Plan, South Sacramento Community Plan, South Natomas Community Plan, and North Natomas Community Plan.
- Consistency of Proposed Project with local and regional transportation plans and programs.
- Compatibility of the Proposed Project with the preservation of cultural and biological resources.
- Compatibility of Proposed Project with existing and future adjacent land uses.
- Development of the highest possible level of safety and security for bicyclists.
- Development of a bikeway system that will benefit and serve the recreational and transportation needs of the public.

3.3 PROJECT HISTORY

Several bikeway studies have been completed for the Sacramento area, beginning with a document published in 1960 by the Bikeway Action Committee, a bicycle advocacy group. The Sacramento Bikeway Master Plan was adopted by the County Board of Supervisors and the City Council in 1975 and 1976, respectively. In 1987, the City and County of Sacramento appointed a Bikeways Task Force to develop a new bikeway plan (Michael Brandman Associates, 1992). The 2010 Sacramento City/County Bikeway Master Plan was completed in August 1991. It was approved by the Sacramento County Board of Supervisors in 1993 and was approved by the Sacramento City Council in 1995. Some portions of the City have undergone significant changes to the infrastructure and land use since completion of the plan in 1991. The current plan is no longer up to date in the developing areas of the City, most notably in Natomas, southern and eastern portions of the City of Sacramento. The Proposed

Project recommends modified and new bikeways in these developing areas with the intent to create a comprehensive bikeway network.

3.4 COMPONENTS OF THE PROPOSED PLAN

The Proposed Project includes an amendment to the existing 2010 Sacramento City/County Bikeway Master Plan. The current amendment includes the placement of new alignments throughout the various communities of the City. The Proposed Project also includes the removal of several proposed alignments within the North Natomas Community Plan area. New and/or modified on- and off-street alignments are proposed for the following communities:

- Airport/Meadowview,
- College Greens,
- East City /McKinley Park,
- North Natomas,
- South Natomas,
- South Sacramento, and
- Tahoe Park.

The new and/or modified on- and off-street alignments for the Proposed Project are shown by community in **Figures 3-3** through **3-10. Tables 3-1** through **3-8** provide descriptions of the new and/or modified on- and off-street alignments that correspond to the numbers shown on each of the associated figures.

A total of approximately 38 miles of off-street alignments will be added to the existing 2010 Sacramento City/County Bikeway Master Plan and 2 miles of off-street alignments will be modified: meaning that an existing planned alignment will be moved. In addition, approximately 5 miles of off-street alignments will be removed from the existing 2010 Sacramento City/County Bikeway Master Plan. In terms of construction, a typical off-street alignment will be 12 feet wide with 2 foot shoulders, making a total facility of 16 feet wide. All off-street alignments are expected to be paved (Ed Cox, pers. comm.).

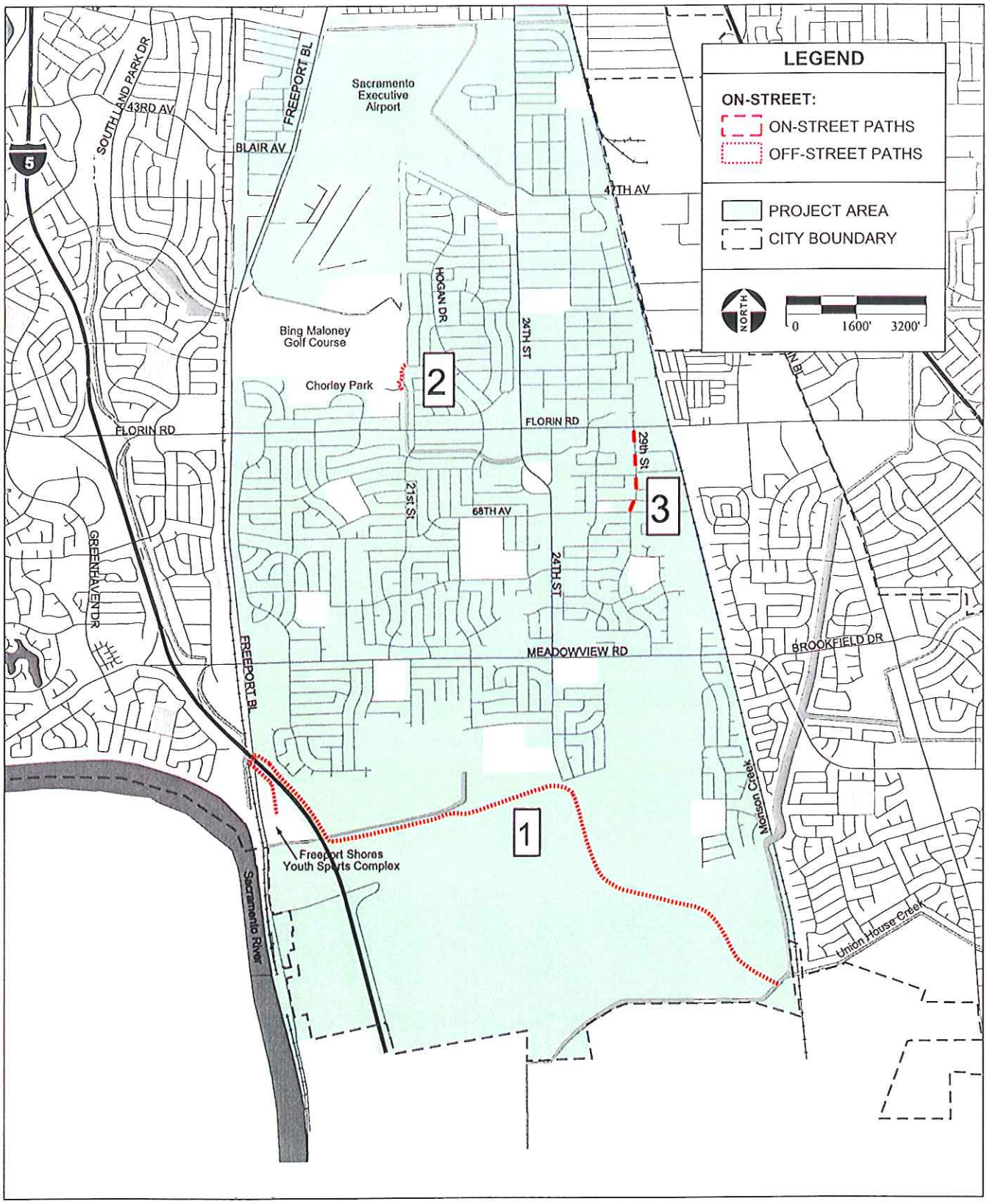
A total of approximately 27 miles of on-street alignments will be added to the existing Bikeway Master Plan and 7 miles of on-street alignments will be "modified," meaning that an existing planned alignment will be moved. Approximately 8 miles of on-street alignments will be removed from the existing 2010 Sacramento City/County Bikeway Master Plan. Construction of new on-street alignments will involve the addition of signs, striping, or the widening of existing roadways to accommodate bike lanes (Ed Cox, pers. comm.).

The existing policy framework relating to the establishment, use and maintenance of bikeways established in the 2010 Sacramento City/County Bikeway Master Plan and other City planning documents is assumed to continue with little or no change.

The Proposed Project includes the establishment of new on-and off-street bikeway alignments that builds-on and modifies the existing established system, thereby allowing the City to more fully attain

existing bikeway goals and policies. The new or modified alignments may involve crossings of canals, roadways, or other obstacles resulting in potential effects associated with sensitive environmental features (e.g., biological, cultural, traffic, etc.). The alignments proposed are to be considered at the programmatic level. Further refinement of the alignments will occur in the future as funding for individual segments becomes available.

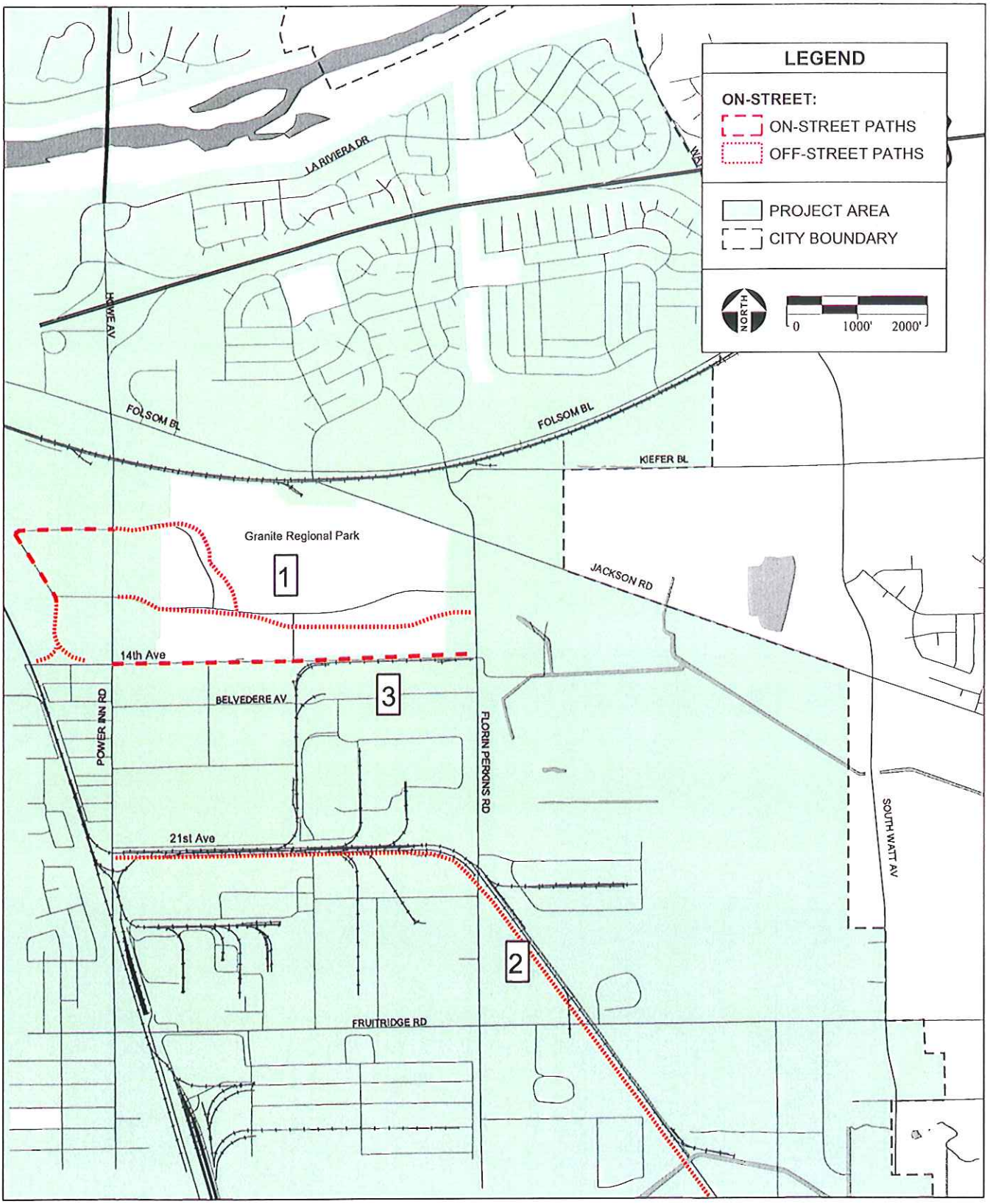
As such, current environmental review will be done at the programmatic level, with project-specific detailed environmental review conducted in the future for individual projects.



SOURCE: City of Sacramento, 7/3/2003 ; AES, 2003

Figure 3-1

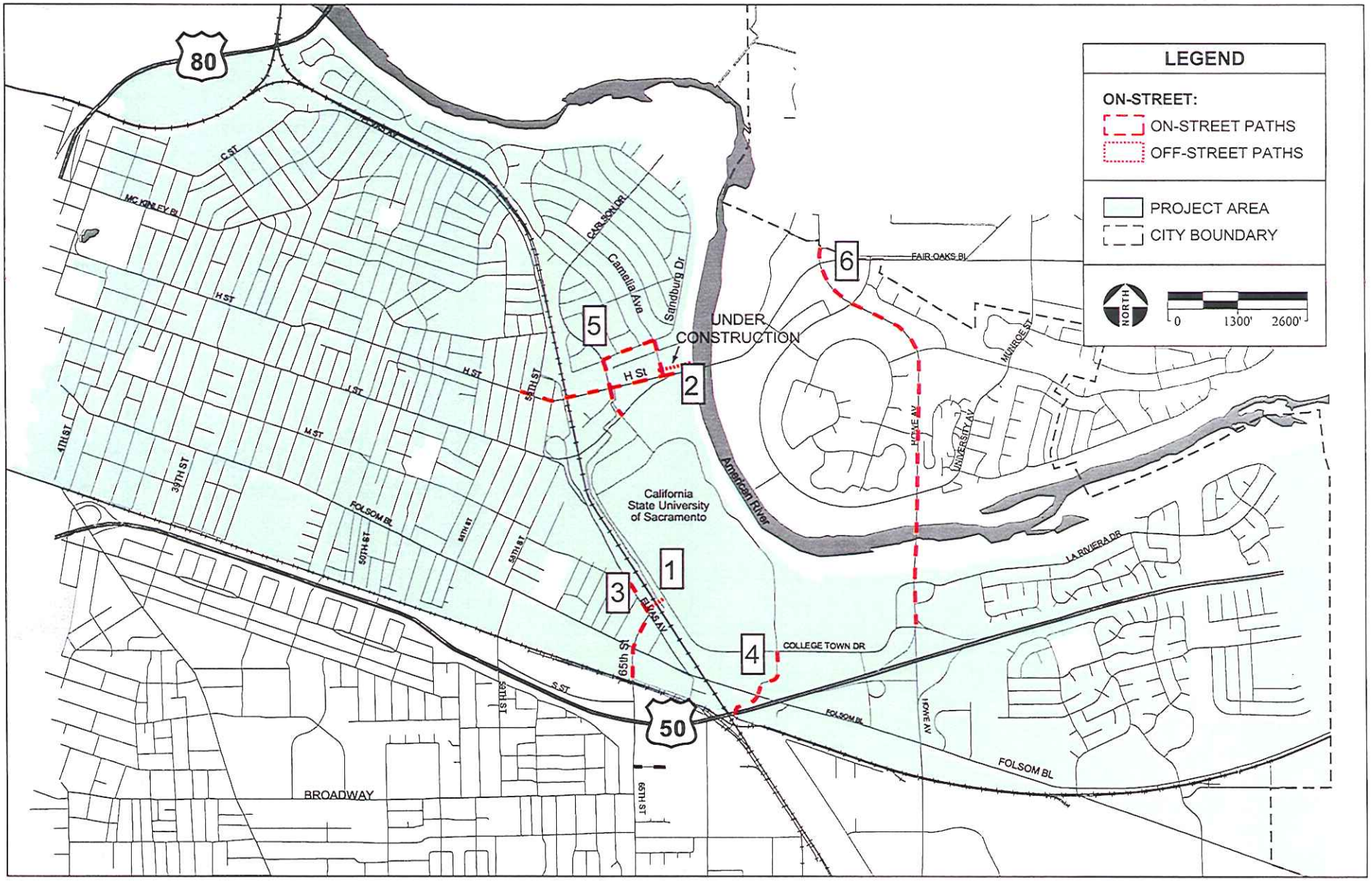
Airport / Meadowview 2010 Bikeway Master Plan Proposed Amendments



SOURCE: City of Sacramento, 7/3/2003 ; AES, 2003

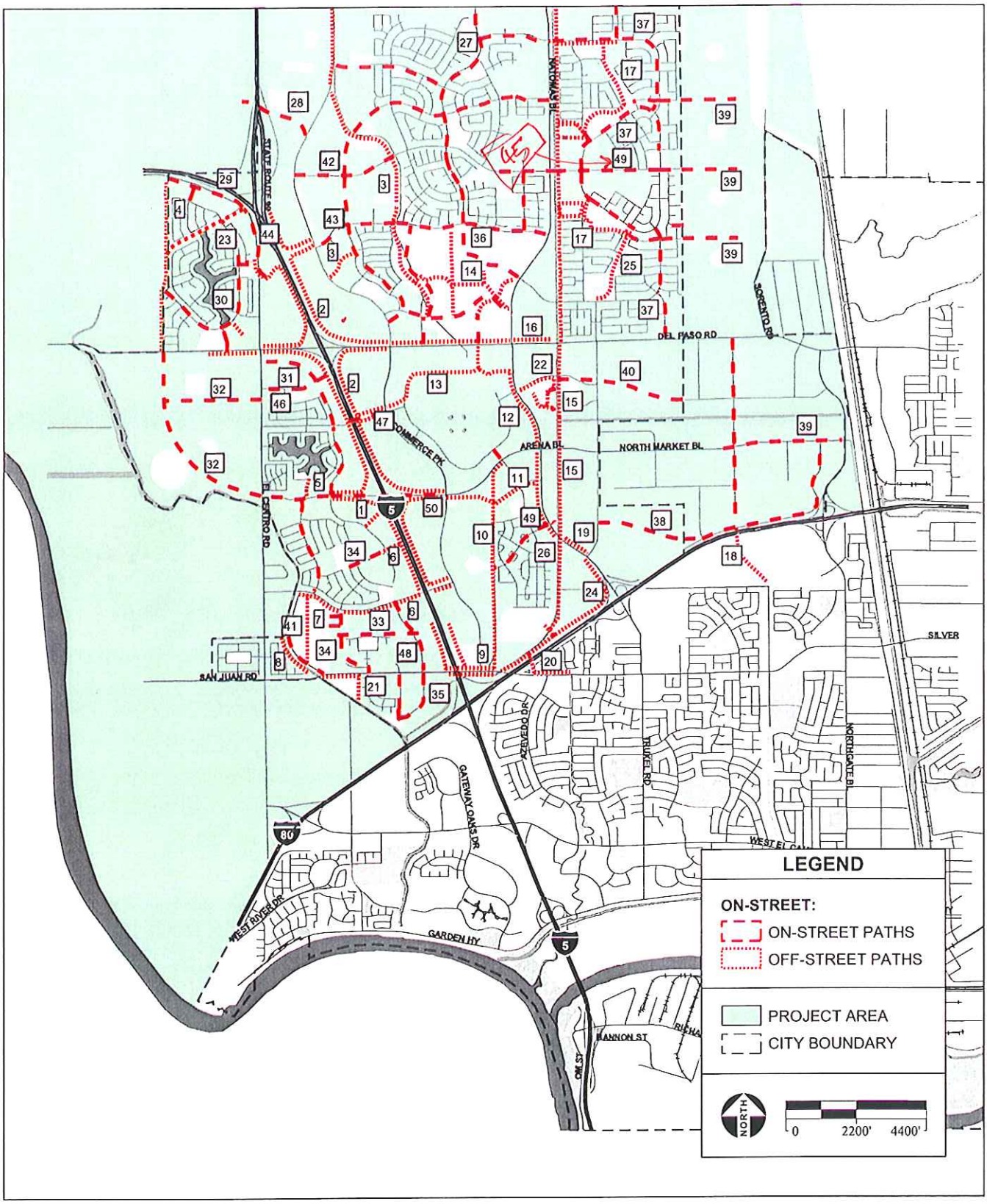
Figure 3-2

College Greens 2010 Bikeway Master Plan Proposed Amendments



SOURCE: City of Sacramento, 7/3/2003 ; AES, 2003

Figure 3-3
East City / McKinley Park Bikeway Master Plan Proposed Amendments

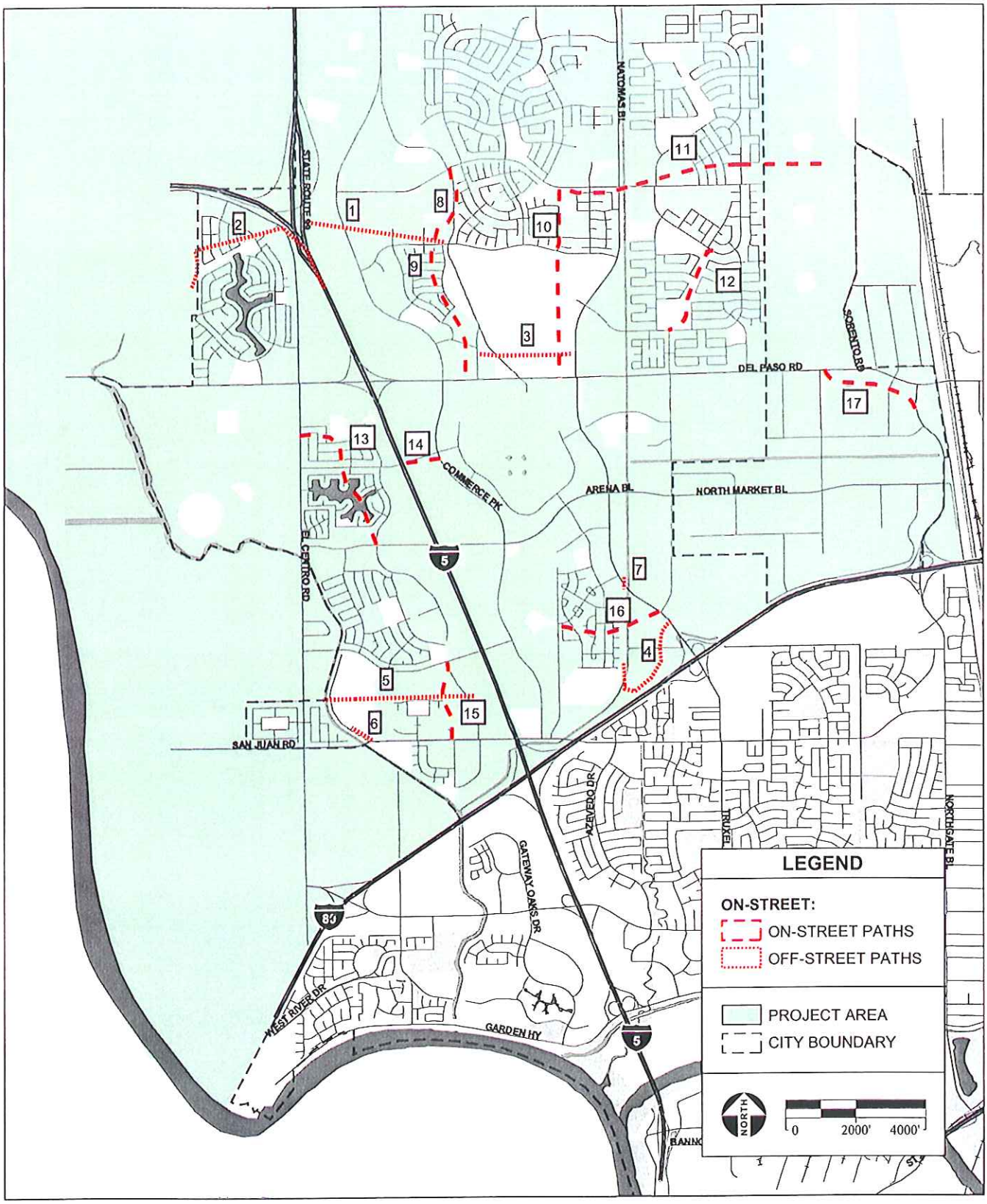


Bikeway Master Plan EIR / 203524 ■

SOURCE: City of Sacramento, 7/3/2003 ; AES, 2003

Figure 3-4

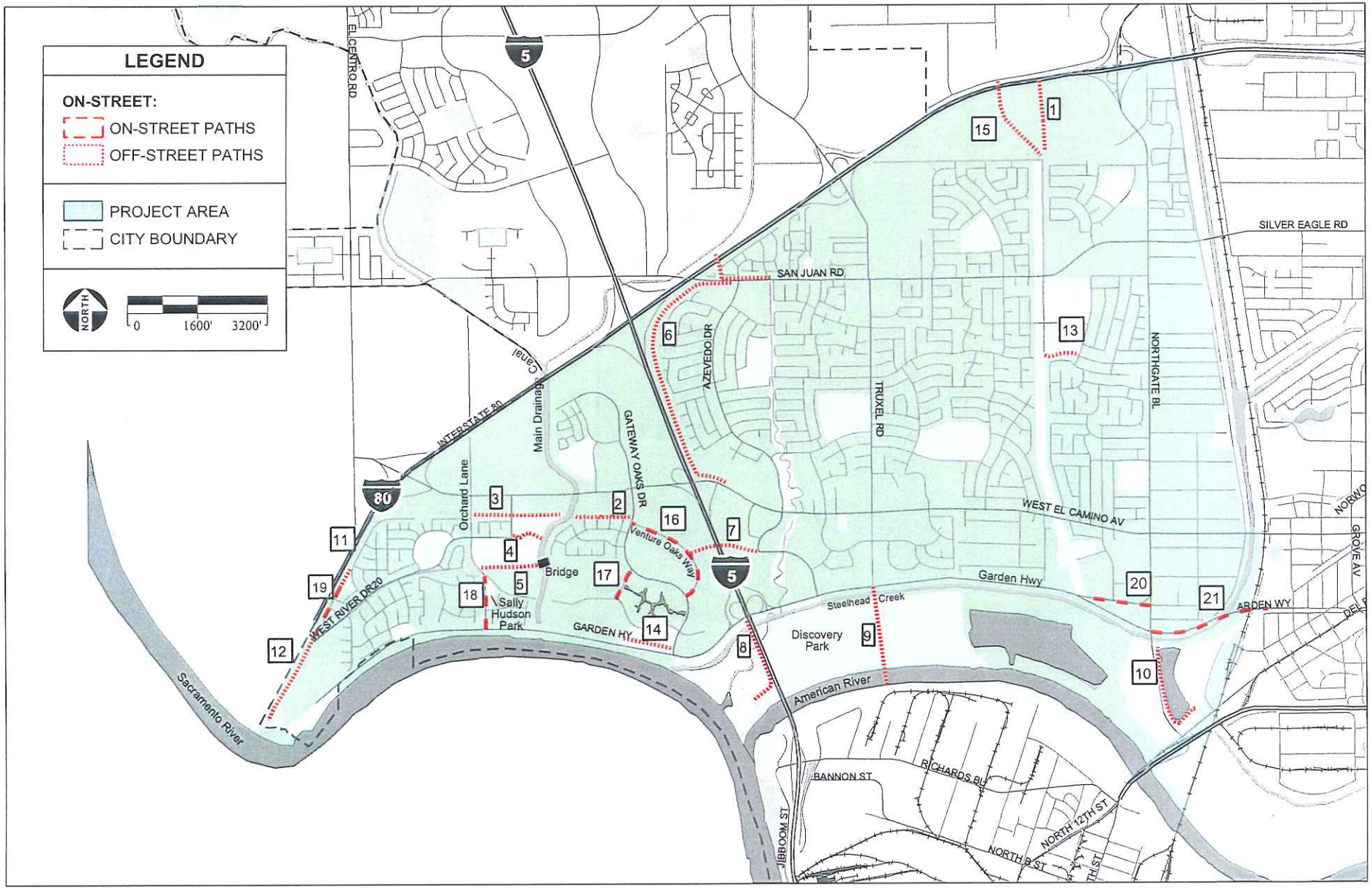
North Natomas Bikeway Master Plan Proposed Amendments (Additions)



SOURCE: City of Sacramento, 7/3/2003 ; AES, 2003

Figure 3-5

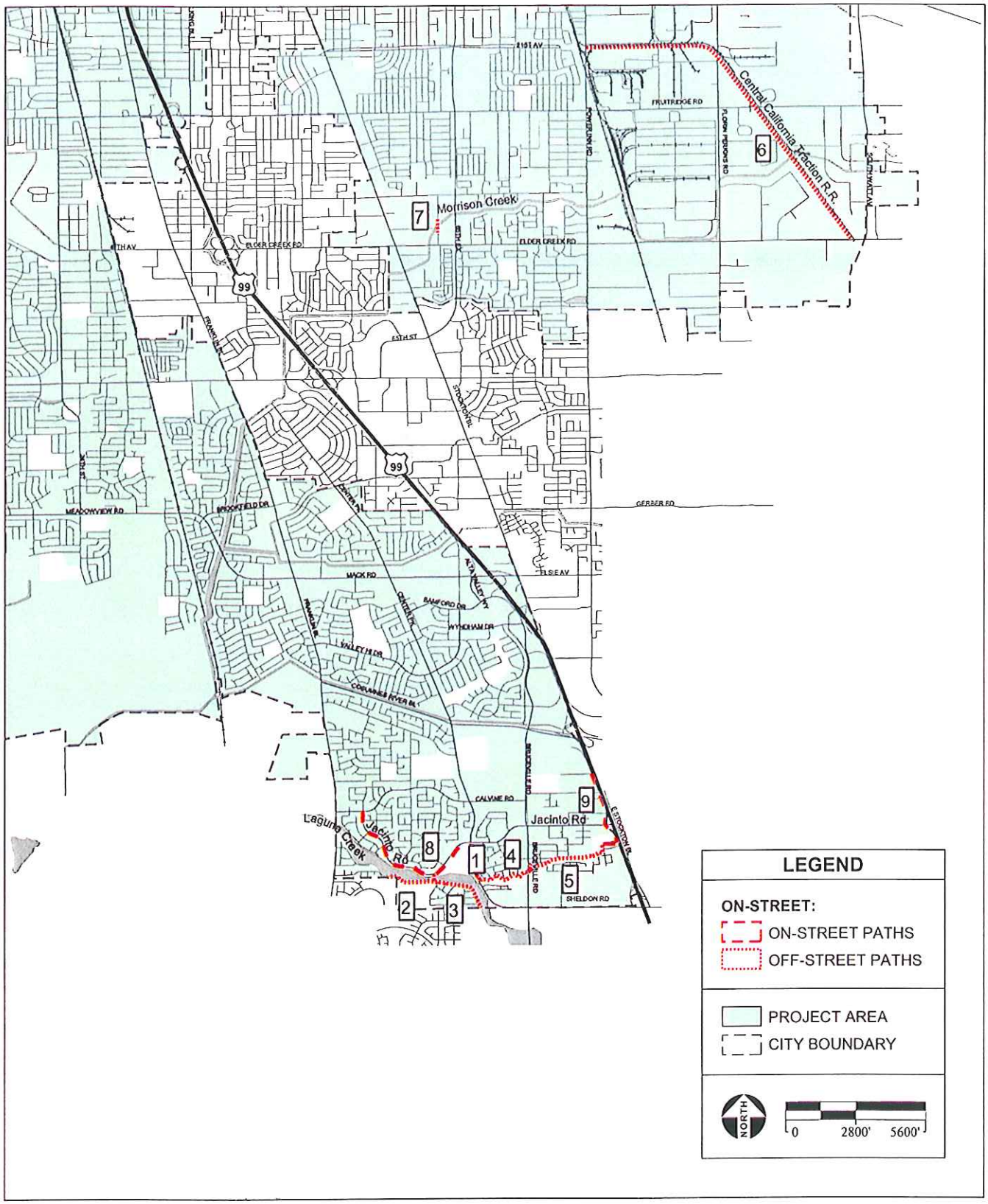
North Natomas Bikeway Master Plan Amendments (Modifications)



SOURCE: City of Sacramento, 7/3/2003 ; AES, 2003

Figure 3-6

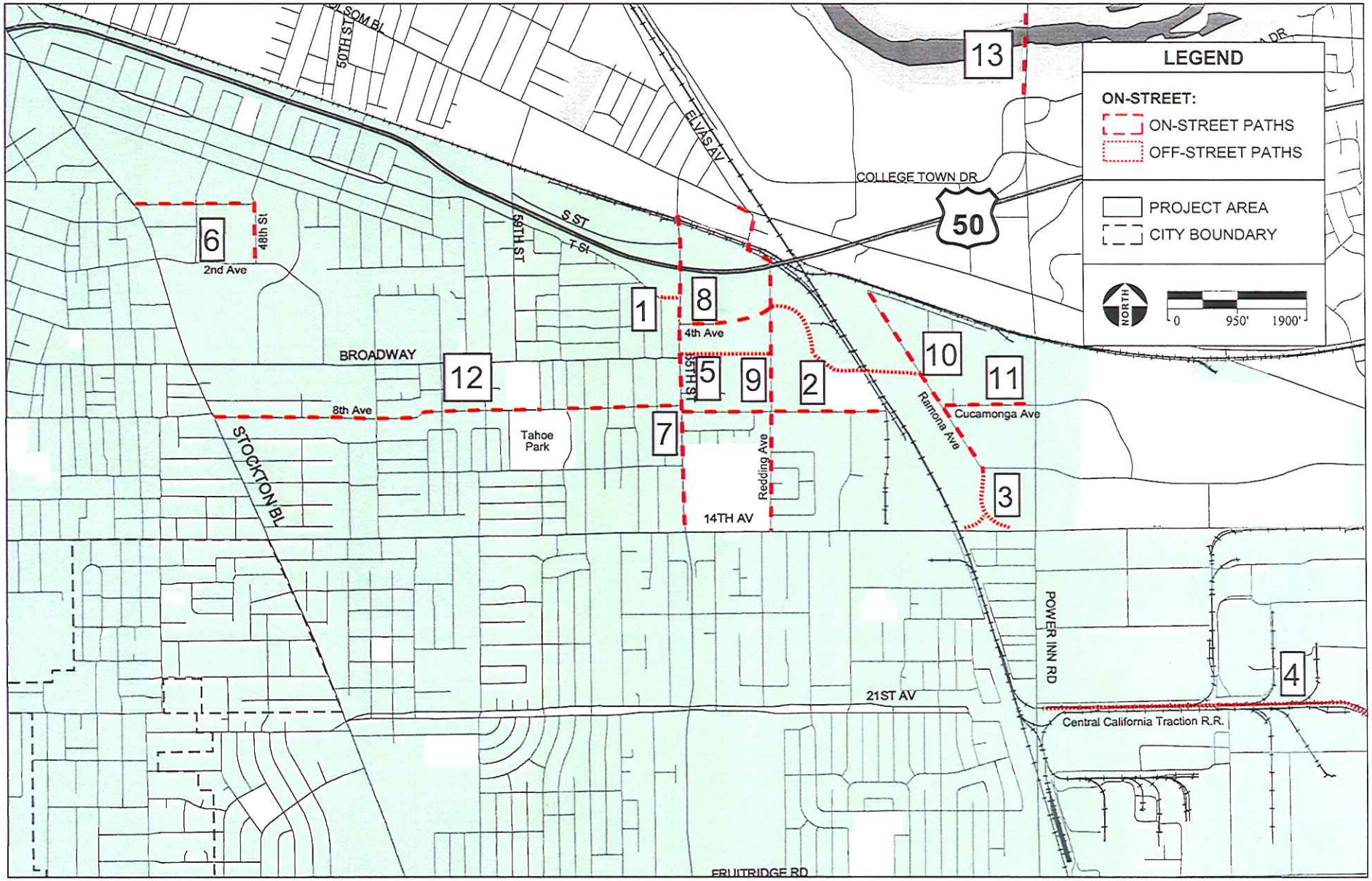
South Natomas Bikeway Master Plan Proposed Amendments



SOURCE: City of Sacramento, 7/3/2003 ; AES, 2003

Figure 3-7

South Sacramento 2010 Bikeway Master Plan Proposed Amendments



SOURCE: City of Sacramento, 7/3/2003 ; AES, 2003

Figure 3-8
Tahoe Park Bikeway Master Plan Proposed Amendments

TABLE 3-1
PROPOSED AMENDMENTS FOR AIRPORT/MEADOWVIEW (SEE FIGURE 3-1)

Off-Street Amendments	On-Street Amendments
1. South Sacramento Parkway Bike Trail	3. 29th Street, Florin Road to Gardendale Road
2. Chorley Park Access	

SOURCE: City of Sacramento, 2003; AES 2003

TABLE 3-2
PROPOSED AMENDMENTS FOR COLLEGE GREENS (SEE FIGURE 3-2)

Off-Street Amendments	On-Street Amendments
1. Granite Park Trails	3. 14th Avenue
2. Cal-Central Traction Railroad	

SOURCE: City of Sacramento, 2003; AES 2003

TABLE 3-3
PROPOSED AMENDMENTS FOR EAST CITY/MCKINLEY PARK (SEE FIGURE 3-3)

Off-Street Amendments	On-Street Amendments
	3. 65th Street/Elvas Avenue
1. Hornet Crossing (C.S.U.S. Access)	4. College Town CSUS Access
2. H Street Crossing	5. Jed Smith Drive Camellia/Sandburg/Carlson/H Street
	6. Howe Ave between Fair Oaks and College Town Drive

SOURCE: City of Sacramento, 2003; AES 2003

TABLE 3-4
PROPOSED AMENDMENTS FOR NORTH NATOMAS (ADDITIONS) (SEE FIGURE 3-4)

Off-Street Amendments	On-Street Amendments
1. Trail added to Gateway West Subdivision map	27. New streets with bikeways (Lennar)
2. All trails along I-5 Corridor part of landscape buffer project	28. New street with bikeway (Schumacher)
3. Trail in Creekside/Shumaker Subdivision	29. Continuation of Bayou Road
4. Trail in Westlake Subdivision	30. New street with bikeways (Lennar Westlake)
5. Trail at Irongate Apartments	31. New streets with bikeways (Cambay West)
6. New trail as part of Allegheny Parkview	32. Schematic street layout (Tsakopoulos)
7. Trail added between detention Basin 7A and Witter Ranch	33. Street replaces off-street bikeway (Allegheny)
8. New trail on west side of West Canal	34. New streets with bikeways (Allegheny)
9. New trail on west side of Basin 6B	35. New street with bikeway (Riverview)
10. New trail along current Airport Road	36. New streets in Regional Park.
11. New trail access to Airport Road	37. New street with bikeway (Northpoint Lennar)
12. New trail west side of LRT on Truxel	38. New streets with bikeway (Fong Ranch)
13. Arena area access trail	39. Suggested County amended bikeways
14. Regional Park trails	40. Extension of Striker to Terracina Way
15. East side of East Main Drain Canal Trail	41. Whitter Road to tie in with proposed trails
16. Del Paso Road/Truxel access	42. New street alignment – Club Center Drive
17. New trails added to Northpointe Subdivision	43. New street alignment at Creekside
18. Ninos Parkway extension/bridge	44. On-street replaces planned off-street at El ~~Camino~~ Centro
19. Natomas Marketplace trail	45. New street alignment – Club Center Drive
20. Bannon Creek Bridge trail/bridge	46. New street alignment – North Street
21. Detention Basin 7B trail	47. New street alignment – Snowy Egret Drive
22. Detention Basin 5A trail	48. New street alignment – Duckhorn Drive
23. Modified trail location (Westlake Map)	49. New street alignment – Natomas Crossing
24. Modified trail alignment at Natomas Marketplace	50. Arena Boulevard
25. New trail in lieu of planned on-street bikeway	
26. Modified trail re-alignment for better street crossing	

SOURCE: City of Sacramento, 2003; AES 2003

TABLE 3-5
PROPOSED AMENDMENTS FOR NORTH NATOMAS (MODIFICATIONS) (SEE FIGURE 3-5)

Off-Street Amendments	On-Street Amendments
1. Segment removed due to subdivision map	8. Street alignment relocated
2. Part of segment re-aligned; other part made into on-street bikeway	9. Street alignment relocated
3. Trail removed at Town Center	10. Street alignment removed
4. Trail to be re-aligned to conform to Natomas Marketplace	11. Street alignment relocated
5. Trail to be made into on-street as part of Allegheny Subdivision	12. On-street segment replaced by off-street trail
6. Trail to be re-classified as on-street (Whitter Way)	13. Street alignment relocated
7. Trail to be re-routed to make better street crossing	14. Street alignment relocated
	15. Street alignment relocated
	16. Street alignment relocated
	17. Street alignment eliminated (County)

SOURCE: City of Sacramento, 2003; AES 2003

TABLE 3-6
PROPOSED AMENDMENTS FOR SOUTH NATOMAS (SEE FIGURE 3-6)

Off-Street Amendments	On-Street Amendments
1. Trail removed for re-alignment of Ninos Parkway Bridge	16. Venture Oaks Way
2. New trail added behind shopping center parallel to West El Camino Avenue	17. Oak Harbor Drive
3. New trail between Orchard Road and Natomas Main Drain Canal	18. West River Drive
4. New trail between Natomas Drain Canal and Leroy Greene Middle School	19. Orchard Lane
5. New trail between Natomas Drain Canal and Sally Hudson Park	20. Shady Arbor Drive
6. Conversion and extension of existing Utility Service Road along I-5	

TABLE 3-6
PROPOSED AMENDMENTS FOR SOUTH NATOMAS (CONTINUED)

7. New trail and bridge crossing of I-5	21. Garden Highway at Northgate Boulevard
8. New all-weather crossing of Discovery Park parallel to I-5	22. Arden-Garden Connector
9. New American River crossing at Truxel Road	
10. New loop trail at reclamation site	
11. New trail at Shady Arbor Drive	
12. New trail extending from West River Drive to the City limits	
13. Strauch Park access road	
14. Garden Highway bike trail through Natomas Oaks Park	
15. Modified trail alignment for Ninos Parkway Bridge	

SOURCE: City of Sacramento, 2003; AES 2003

TABLE 3-7
PROPOSED AMENDMENTS FOR SOUTH SACRAMENTO (SEE FIGURE 3-7)

Off-Street Amendments	On-Street Amendments
1. Bike trail replaced with on-street bikeway	8. Jacinto Road, from Center Parkway to Calvine Road
2. Laguna Creek South Trail – West	9. Jacinto Creek Parkway to future Light Rail crossing
3. Laguna Creek South Trail – East	
4. Laguna Creek/Jacinto Creek Trail	
5. Jacinto Creek Parkway	
6. Cal Central Traction RR Trail	
7. Morrison Creek Bike/Ped Bridge	

SOURCE: City of Sacramento, 2003; AES 2003

TABLE 3-8
PROPOSED AMENDMENTS FOR TAHOE PARK (SEE FIGURE 3-8)

Off-Street Amendments	On-Street Amendments
1. T Street Connector	5. Broadway between 65th Street and Redding Avenue
2. 4th Avenue Trail	6. UC Davis Medical Center on-street
3. Ramona Access Trail	7. 65th Street/Elvas Avenue
4. Cal Central Traction RR Trail	8. 4th Avenue
	9. Redding Avenue
	10. Ramona Avenue
	11. Cucamonga Avenue
	12. 8th Avenue
	13. Power Inn at American River crossing

SOURCE: City of Sacramento, 2003; AES 2003

CHAPTER 4.0

ALTERNATIVES TO THE PROPOSED PROJECT

CHAPTER 4.0

ALTERNATIVES TO THE PROPOSED PROJECT

4.1 INTRODUCTION

This chapter reviews the range of alternatives that were considered in developing this EIR. The purpose of the alternatives analysis in an EIR is to describe a range of reasonable alternatives to the project that could feasibly attain most of the objectives of the Proposed Project, and to evaluate the comparative merits of the alternatives (CEQA *Guidelines*, Section 15126.6[a]).

Additionally, Section 15126.6 (b) of the CEQA *Guidelines* requires consideration of alternatives that could reduce to a less-than-significant level or eliminate any significant adverse environmental effects of the Proposed Project, including alternatives that may be more costly or could otherwise impede the Proposed Project's objectives. The range of alternatives evaluated in an EIR is governed by a "rule of reason," which requires the evaluation of alternatives "necessary to permit a reasoned choice." Alternatives considered must include those that offer substantial environmental advantages over the Proposed Project and may be feasibly accomplished in a successful manner considering economic, environmental, social, technological, and legal factors.

4.2 ALTERNATIVES EVALUATED IN THIS EIR

4.2.1 ALTERNATIVE A: NO PROJECT ALTERNATIVE (AA)

As required by Section 15126.6(e) of the CEQA *Guidelines*, the No Project Alternative must be evaluated as part of the EIR. The purpose in addressing the No Project Alternative is to allow decision makers the ability to compare the impacts of the Proposed Project versus no project.

The existing condition portion of the No Project Alternative includes the environmental conditions that exist at the time that the environmental analysis is commenced (CEQA *Guidelines*, 15126.6(e)(2)). The No Project Alternative assumes no development for existing plus project conditions.

According to the CEQA *Guidelines*, the No Project Alternative shall discuss what would reasonably be expected to occur in the *foreseeable future* if the project were not approved (15126.6(e)(2)). Under the No Project Alternative, no amendments to the 2010 Sacramento City/County Bikeway Master Plan would be adopted.

4.2.2 ALTERNATIVE B: NATURAL RESOURCE SENSITIVE ALTERNATIVE (AB)

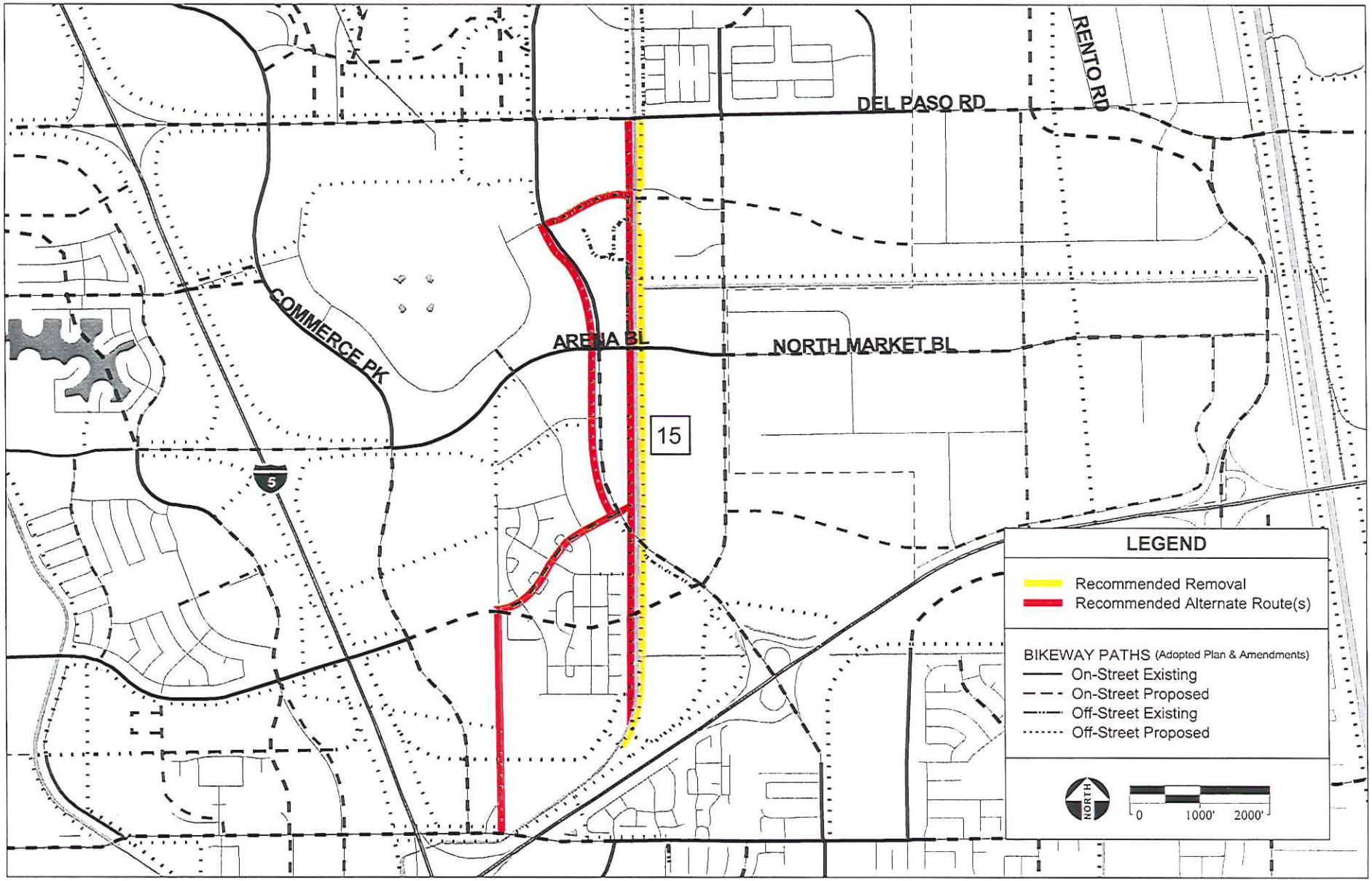
The Natural Resource Sensitive Alternative would remove or reroute the following amendments with the potential to impact natural resources. Recommended removals and alternative routes for North Natomas are shown in **Figure 4-1,** while those for South Natomas are shown in **Figure 4-2.**

Potential loss of habitat and impacts to special-status species would be avoided or reduced through the Natural Resource Sensitive Alternative.

- North Natomas Amendment 15 (East side of East Main Drain Canal) - This segment has potential giant garter snake issues during construction activity and during use by cyclists. Under this alternative, this segment is removed and the routes presented in **Figure 4-1** are used as an alternative.

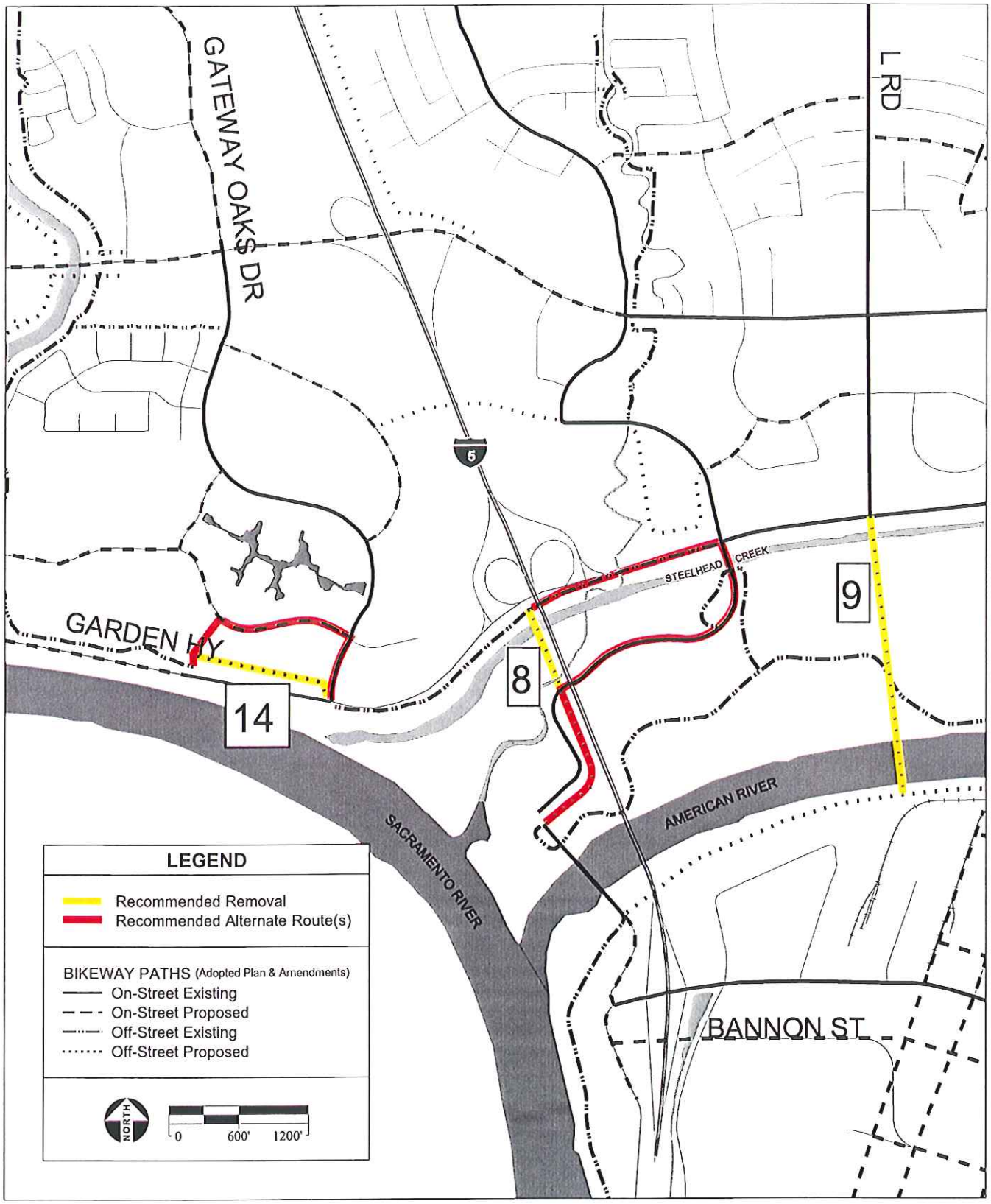
- South Natomas Amendment 14 (Garden Highway bike trail through Natomas Oaks Park) - This segment has the potential to negatively impact valley oaks, which are protected by City ordinance. Development of this bike path could potentially result in soil compaction in root zones and damage to root systems. In addition, the area is designated as a "nature area" and the bike path could be viewed as conflicting with this intended use. Although the park currently contains a walking trail, this alternative has bicyclists circumventing the park using an alternative route presented in **Figure 4-2**.

- South Natomas Amendment 8 (New all-weather crossing of Discovery Park) - This amendment would require a bridge crossing of Steelhead Creek. This area would be under the jurisdiction of the Army Corps of Engineers and California Department of Fish and Game. Construction of a crossing may not require fill of the Steelhead Creek, but would require work along the bank and potential loss of riparian vegetation and impacts to special-status species. An alternative route is presented in **Figure 4-2**.



SOURCE: City of Sacramento, 7/3/2003 ; AES, 2003

Figure 4-1
Natural Resource Sensitive Alternative for North Natomas



SOURCE: City of Sacramento, 7/3/2003 ; AES, 2003

Figure 4-2
Natural Resource Sensitive Alternative for South Natomas

CHAPTER 5.0

LAND USE, ZONING, AND ADOPTED PLANS

CHAPTER 5.0

LAND USE, ZONING, AND ADOPTED PLANS

5.1 INTRODUCTION

This chapter provides information regarding current land use, land use designations and land use policies encompassing the project area. Section 15125(d) of the CEQA Guidelines states that "The EIR shall discuss any inconsistencies between the proposed project and applicable general plans and regional plans." This section therefore, reviews the land use assumptions, designations and policies of the General Plan of the City of Sacramento, which governs the project area. In addition, this Chapter includes a land use compatibility assessment to identify whether or not implementation of the project will result in conflicts between land uses or displacement of land uses.

In order to analyze land use consistency and land use impacts, the following approach was employed: 1) the proposed project was reviewed relative to the land use assumptions, policies and designations of the City of Sacramento General Plan and related community land use plans; 2) the proposed uses of the plan and alternatives were reviewed to identify any potential conflicts between the planned project and existing or proposed land uses in the vicinity. In some instances, a plan or land use inconsistency also poses physical environmental consequences. In these cases, the consequences are discussed in the specific chapter of this EIR that focuses on that issue. The discussion provided in this chapter provides a basis for understanding the physical environmental impacts presented in the rest of the document.

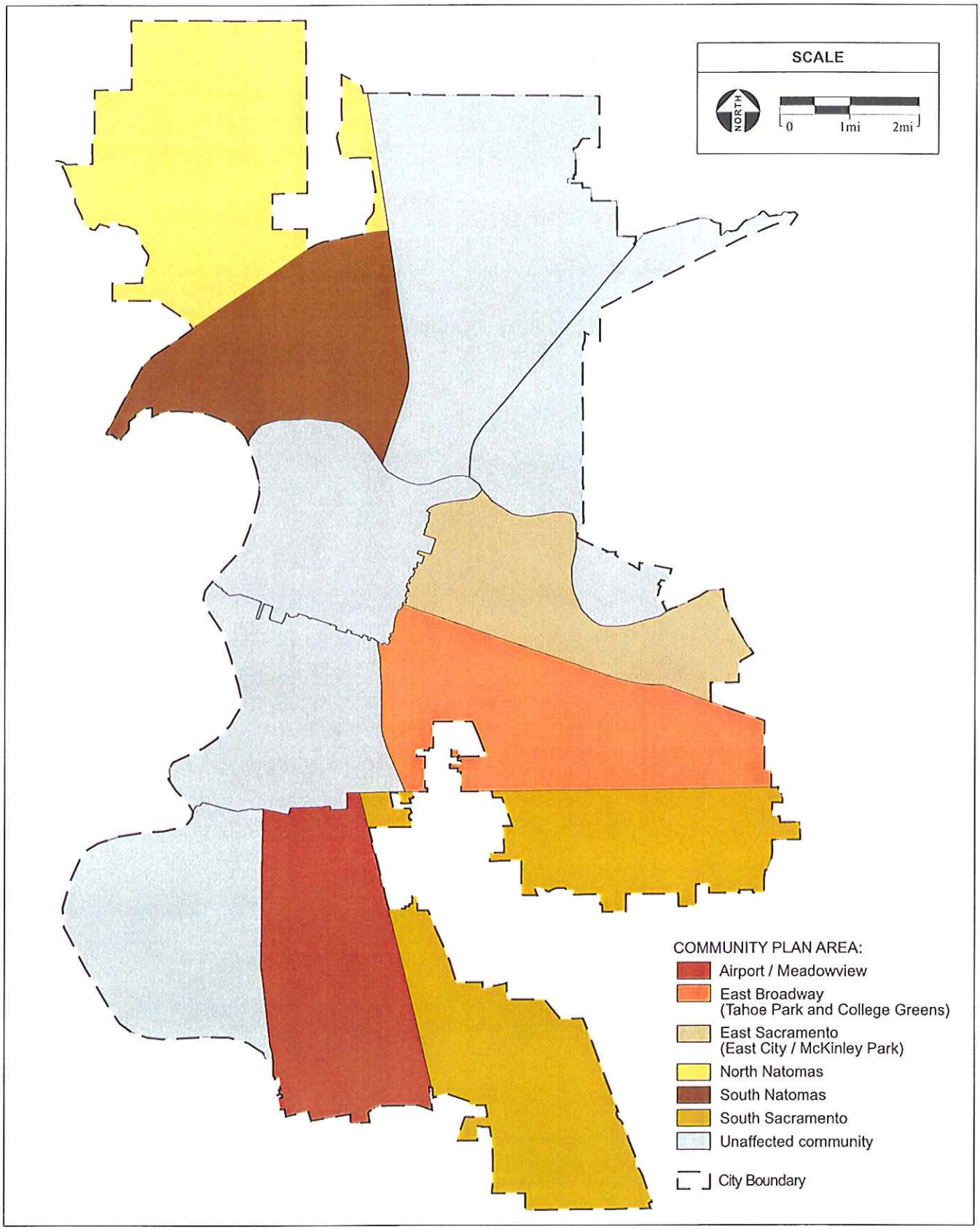
5.2 LAND USE INFORMATION

The Proposed Project and Alternative B are located Citywide and encompass several community plan areas including Airport/Meadowview, East Broadway, East Sacramento, North Natomas, South Natomas, and South Sacramento as shown in **Figure 5-1**.

5.2.1 EXISTING LAND USES

AIRPORT/MEADOWVIEW COMMUNITY PLAN AREA

The Airport/Meadowview area is made up largely of single-family residential development with commercial development along Florin Road, Freeport Boulevard and other major thoroughfares. The community is comprised of six main neighborhoods: Freeport Manor, Airport, Meadowview, Golf Course Terrace, Woodbine, and Brentwood. The Airport/Meadowview Community Plan area is bounded on the north by 35th Avenue and the drainage canal located north of Executive Airport, on the east by the Union Pacific Railroad tracks, on the south by the City limit line, and on the west by the Southern Pacific Railroad tracks (City of Sacramento, 2003g).



SOURCE: City of Sacramento, 2003 ; AES, 2003

Figure 5-1

City of Sacramento Community Plan Areas Affected by Bikeway Amendments

EAST BROADWAY COMMUNITY PLAN AREA: TAHOE PARK AND COLLEGE GREENS

The East Broadway Community Area is defined by its maturing residential neighborhoods, including Elmhurst, Med Center, Oak Park, Fairgrounds, Tahoe Park, Colonial Heights, Tallac Village, and Colonial Village neighborhoods. These neighborhoods are desirable in part because of their small, affordable homes, tree-lined grid pattern streets, and close proximity to Downtown. Historic elms line the Elmhurst section of the T Street Parkway, and community and business-led efforts are currently underway to preserve the community's older storefronts and landmark buildings on Broadway and Stockton Boulevard. This area is bounded by the Southern Pacific Railroad and Jackson Highway to the north, the City limit to the east, Fruitridge Road to the south, and Franklin Boulevard and a Business Loop 80 to the west (City of Sacramento, 2003g).

EAST SACRAMENTO COMMUNITY PLAN AREA: EAST CITY/MCKINLEY PARK

The East Sacramento community is one of the older, more established neighborhoods in the City of Sacramento. The area contains several parks, adjoins the American River Parkway, and includes California State University, Sacramento. Commercial space within the area tends to be small scale in the western portion of the area, and larger scale commercial is present in the southeastern portion of the area on Folsom Boulevard. The East Sacramento Community Plan area is bounded by the American River to the north, by Watt Avenue on the east, by the Light Rail right-of-way and Folsom Boulevard to the south, and by Alhambra Boulevard to the west (City of Sacramento, 2003g).

NORTH NATOMAS COMMUNITY PLAN AREA

North Natomas is the new growth area of the City of Sacramento. Existing development in North Natomas includes the Natomas Marketplace regional shopping center, Arco Arena, Sacramento Coca-Cola Bottling Company warehouse and bottling facility, Raley's Distribution Center, Fry's Electronics, and a 108,000 square foot office building along Del Paso Road. A variety of residential uses are located in the area. Witter Ranch Historic Farm, Fisherman's Lake, Ueda Parkway, Town Center and future 200 acre Regional Park are the highlights of the community. North Natomas is designated to be the City's major growth area for new housing and employment opportunities. The North Natomas Community Plan area is bounded by Elkhorn Boulevard to the north, the Steelhead Creek to the east, Interstate-80 to the south, and the City limit line to the west (City of Sacramento, 2003g). The North Natomas Community is within the jurisdiction of Reclamation District No. 1000. The district grants easements that allow bike trail construction adjacent to canals within the districts 10-foot right-of-way from the toe of the berm. The districts right-of-way consists of canal bed, berm, and 10 feet from toe of berm.

SOUTH NATOMAS COMMUNITY PLAN AREA

The South Natomas Community Plan area covers the portion of the City of Sacramento just north of the Central City. The South Natomas Community Plan area is bounded by the Steelhead Creek to the east, the American River and Sacramento River to the south, and Interstate-80 to the west. The South Natomas area's population is only expected to increase a 1% in the next few years, from 36,706 in 1998 to 37,166 in 2022. The remaining vacant area in South Natomas can be found primarily west of the Natomas Main Drainage Canal, which is within the Willowcreek Assessment District currently being formed to finance basic infrastructure such as roads, sewer, and drainage. Additionally, the Gardenland area east of Northgate Boulevard has been designated for residential infill development (City of Sacramento, 2003g).

SOUTH SACRAMENTO COMMUNITY PLAN AREA

The South Sacramento community includes a mix of housing types, including: single and multiple family developments, independent and assisted senior housing developments. Large commercial shopping developments including Florin Mall and Southgate Center are located in the northern portion of the area. In addition, the community is served by two hospitals, several medical facilities, and the Cosumnes River Community College. The South Sacramento Community Plan area is split into two sections, divided by an unincorporated portion of Sacramento County. In general, the plan area is bounded on the north by Fruitridge Road, on the east by Elk Grove Florin Road (South Watt Avenue), on the south by Sheldon Road, and on the west by the Union Pacific Railroad. The City portion of the community consists of the northeast portion north of Florin Road and a portion of the area west of Highway 99 (City of Sacramento, 2003g).

5.2.2 APPLICABLE LAND USE GOALS AND POLICIES

CITY OF SACRAMENTO GENERAL PLAN

The 1988 City General Plan is a 20-year policy guide for the growth and development of the City of Sacramento. The General Plan acts as the overall guiding policy document for land uses in the City and is the principal tool for evaluating public and private projects.

Applicable Goals and Policies

The General Plan includes the following specific goals and policies that are applicable to the Proposed Project and the project alternatives:

Section 1. The General Plan for Sacramento

Policy 1: It is the policy of the City to enhance and maintain the quality of life by adhering to high standards for project and plan evaluation as these relate to the following characteristics that help define the quality of life in the City (Sec. 1-30).

- Air Quality is a top priority in maintaining Sacramento's quality of life. The goal of compliance with Federal air quality standards – as soon as possible – must be considered in land use decisions making and transportation planning.

Policy 4: It is the policy of the city to approve development in the City's new growth areas that promotes efficient growth patterns and public service extensions, and is compatible with adjacent developments (Sec. 1-33)

- New growth area development may have significant transportation impacts on the existing circulation network. As a prelude to development of these areas, master circulation plans including major streets, alternative-transportation modes, and Transportation Systems Management measures, shall be required.

Policy 8: It is the policy of the City to promote an efficient, safe, and balanced transportation system.

- The city will implement measures that reduce the impact of the automobile and will result in more efficient use of the existing system including the promotion of travel alternatives.

Section 5. Circulation Element/Bikeways

Goal A: Develop bicycling as a major transportation and recreational mode (Sec. 5-23).

Policy 1: Develop bikeways in a coordinated manner with the county and other agencies, to facilitate commuting to and from major trip generators (Sec. 5-19).

Policy 2: Require major employment centers (50 or more total employers) to install showers, lockers, and secure parking areas for bicyclists as part of any entitlement (Sec. 5-19).

Policy 3: Maintain public bikeways in a manner that promotes their use, by developing a continuous repair and maintenance program (Sec. 5-21).

Policy 4: Work with appropriate agencies to update as needed the 2010 Bikeway Master Plan.

Policy 5: Support the County of Sacramento's "Rails to Trails," bikeway program.

2010 SACRAMENTO CITY/COUNTY BIKEWAY MASTER PLAN

The 2010 Sacramento City/County Bikeway Master Plan (Master Plan) guides the planning and management of the City's bikeways. In 1962, interest in bikeway planning began when a bike path

pattern was shown in the American River Parkway Plan. The 1975 Bikeways Master Plan was prepared in response to the growing interest in bicycling. The 1975 Bikeways Master Plan was the first comprehensive plan to develop a bikeway system not only for recreation, but also to promote an alternative form of transportation for the City and County of Sacramento. In 1994 the County of Sacramento adopted the 2010 Sacramento City/County Bikeway Master Plan. This plan was considered a new master plan and not an update or an amendment to the existing master plan. The City of Sacramento officially adopted the 2010 Sacramento City/County Bikeway Master Plan in 1995 with a minor update in 2001. The overall goal of the current 2010 Sacramento City/County Bikeway Master Plan is to develop a comprehensive updated Sacramento City/County Bikeway Master Plan which will meet the needs of the bicyclists.

Applicable Goals and Policies

The Bikeway Master Plan includes the following specific objectives that are applicable to the Proposed Project and the project alternatives:

Objective 1: To develop and maintain a coordinated approach by City/County and other agencies to implement the plan as funding becomes available or as development occurs.

Objective 2: To achieve the highest possible level of safety and security for cyclists.

Objective 3: To provide adequate design consideration for bicycle facilities in all development plans and programs.

Objective 4: To develop a comprehensive bikeway maintenance program.

Objective 5: To develop a bikeway system which incorporates aesthetics and the historical characteristics of the Sacramento area.

SACRAMENTO AREA COUNCIL OF GOVERNMENT'S METROPOLITAN TRANSPORTATION PLAN (SACOG MTP)

The Sacramento Area Council of Government's Metropolitan Transportation Plan (SACOG MTP) for 2025 includes hundreds of proposed transportation, circulation and safety projects for the next 22years. SACOG provides a forum for regional cooperation on bicycle and pedestrian projects through a Bicycle and Pedestrian Advisory Committee. Emphasis in 2003 is the development of the Regional Bicycle, Pedestrian and Trails Master Plan to provide guidance to local governments on priorities for non-motorized transportation. The Proposed Bikeway Master Plan Amendments are consistent with the SACOG Metropolitan Transportation Plan goals of prioritizing alternative modes of transportation.

CITY OF SACRAMENTO COMMUNITY PLANS

The City of Sacramento is divided into a total of eleven community plan areas. The following four community plan areas fall within the boundaries of the project area and have established community plans. There are no current community plans for East Sacramento or East Broadway. The City of Sacramento General Plan determines land use within these two areas.

Airport/Meadowview Community Plan

The 1984 Airport/Meadowview Community Plan updates plans completed in 1965. The Community Plan project was started in May 1982. Information was gathered about population, housing, land use, transportation, schools, parks, and community issues. The 1984 community plan helps provide a focus for community interest and concern about present and future changes within the Airport/Meadowview community.

Applicable Goals and Policies

The Airport/Meadowview Community Plan includes the following specific goals, objectives, and policies that are applicable to the Proposed Project and the project alternatives:

Transportation

Goal 1:	Ensure that the Airport/Meadowview community provides safe and sufficient transportation by means of car, foot, bike, bus or plane.
Objective 4:	Work toward the completion of a safe and compressive pedestrian/bikeway system which emphasizes commuter routes.
Policy 3a:	Require that a pedestrian/bikeway system be provided within future high tech industrial and residential developments, in order to link jobs, residences, recreation areas and community facilities.
Policy 3c:	Provide routes along utility transmission easements, natural man made water courses, into potential recreation areas such as Freeport, and to parks within the Airport Meadowview community.

South Sacramento Community Plan

The 1986 South Sacramento Community Plan revises and consolidates the five existing community plans covering South Sacramento: the Fruitridge (1965), Colonial (1965), Southgate (1965), Lindale-Florin (1965), and Valley Hi (1968) plans. This community plan is a long range planning document that's serves as a policy guide for planners, public officials, and landowners to assist in them in their determinations relating to development in the community.

Applicable Goals and Policies

The South Sacramento Community Plan includes the following specific goals and policies that are applicable to the Proposed Project and the project alternatives:

Transportation and Circulation Element

Policy 4: Provide adequate bike paths throughout South Sacramento

- Amend the Bikeway Master Plan to provide bike paths for growth areas.

The Environment

Policy 5: Reduce traffic noise impacts of future development and mitigate air pollution throughout South Sacramento

- Apply the City's TSM measures to all new major employers in South Sacramento. Encourage existing employers to take whatever measures they can to mitigate traffic impacts, such as the provision of bicycle facilities and encouraging employers to carpool or take public transit.

South Natomas Community Plan

The 1988 South Natomas Community Plan is a long range planning document that serves as a policy guide for planners, public officials, and landowners to assist in them in their determinations relating to development in the community. This plan updates the 1986 community plan.

Applicable Goals and Policies

The South Natomas Community Plan includes the following specific goals and policies that are applicable to the Proposed Project and the project alternatives:

Transportation: Bicycle Routes

Policy A: Provide a system of on-street bicycle routes for bicycle commuters and attractive off-street bicycle paths for recreational bicyclists.

North Natomas Community Plan

The 1994 North Natomas Community Plan is a basic study for the physical development of the North Natomas area of the City of Sacramento. The community plan is a refinement of the goals and objectives of the General Plan. This plan amends the 1986 North Natomas Community Plan.

Applicable Goals and Policies

The North Natomas Community Plan includes the following specific goals and policies that are applicable to the Proposed Project and the project alternatives:

Circulation Element: Pedestrian/Bikeways

Policy A: Provide a system of on-street bicycle routes and off-street bicycle paths that connect all residential neighborhoods with activity centers in order to increase the likelihood that a person chooses a bicycle as a commute mode.

Policy B: Create pedestrian circulation opportunities and avoid pedestrian and bicycle circulation with private development.

Policy C: Provide attractive recreational opportunities for bicyclists and pedestrians.

CITY OF SACRAMENTO PARKS AND RECREATION MASTER PLAN (DRAFT)

In 1997, the City of Sacramento commissioned a two phase Master Plan for Park Facilities and Recreation Services (Draft Master Plan) to guide the planning and management of the city's park and recreation facilities and services. The Draft Master Plan uses the goals and polices established in the 1984 Master Plan and the 1989 Master Plan Update to develop recommendations to address existing and future park and recreation needs within the City of Sacramento. The current draft publication was never formally adopted by the City Council and an update of the City's Parks and Recreation Master Plan is currently underway. Formal adoption of the Master Plan by the city council is expected in early 2004.

Draft Master Plan Goals and Policies

The Master Plan includes the following specific policies that are applicable to the Proposed Project and the project alternatives:

Policy 2.2: Where feasible, community and regional parks shall be connected to the City multiuse trail and bicycle trail network. The Parks Department shall be responsible for coordinating the planning, implementation, and maintenance of off street multi-use and bicycle trails, and associated open space.

Policy 2.3: Multi-modal circulation shall be encouraged through construction and improvement of multi-use and bicycle trails to serve existing and future recreational and commute needs.

Policy 2.4: Multi-use trails and bicycle trails shown on proposed land use plans, such as subdivision maps, shall be in conformance with the City/County Bikeway Master Plan.

SACRAMENTO RIVER PARKWAY PLAN

The 1997 Sacramento River Parkway Plan is a twenty-year policy guide for habitat preservation and restoration and recreational development for lands adjacent to the River. The Plan was updated in July of 2003. The Plan identifies current conditions, develops a vision for the future, and identifies programs and actions for achieving the vision.

Applicable Goals and Policies

The Sacramento River Parkway Plan includes the following specific goals that are applicable to the Proposed Project and the project alternatives:

Goal 3: To provide appropriate access and facilities for the enjoyment of the Parkway by present and future generations

Goal 4: To create a continuous, lineal on-River Parkway with a bicycle and pedestrian trail along the Sacramento River from the city limits at I-80 and Garden Highway in South Natomas to the City Limits at Freeport; until such time that all of the Parkway lands are under public ownership, the goal is to provide a continuous lineal parkway on- and off-river by using an Interim Bypass Trail.

5.3 LAND USE ANALYSIS

LAND USE CONSISTENCY AND COMPATIBILITY

Below is an evaluation of the consistency of the Proposed Project and project alternatives with adopted plans, policies, and ordinances for the downtown area.

METHODOLOGY

This section is divided into two separate analyses: (1) Compatibility with Adjacent Land Uses, and (2) Consistency with Adopted Plans. Environmental impacts resulting from the Proposed Project or alternatives are discussed in the respective environmental categories (e.g., traffic section for significant traffic impacts, air quality section for air quality impacts, etc.). An inconsistency is identified if the Proposed Project or alternatives are inconsistent with the adopted plans identified below. This section differs from other discussions in that plan consistencies are addressed as opposed to environmental impacts and mitigation measures. This discussion complies with Section 15125 (b) of the CEQA *Guidelines,* which requires the EIR to discuss inconsistencies as part of the environmental setting.

COMPATIBILITY WITH ADJACENT LAND USES

The Proposed Project and alternatives are evaluated for compatibility with the existing land uses surrounding the project/alternative sites. The evaluation considers the type and intensity of uses in the plan area. The analysis will evaluate the proposed plan and alternatives against the existing environment and will determine if it is compatible with those existing uses.

On-Street Bikeways

PP, AB Construction of the Proposed Project and Alternative B, the Resource Sensitive Alternative, would result in new or modified on- and off-street bikeways. On street bike lanes and routes are located throughout the City on public streets and roads. These streets and roads are sited through various types of land uses including residential, commercial, industrial, recreational, and agricultural. Land use conflicts associated with roadway widening or new road construction to accommodate the proposed bikeways could occur. During construction, homes and business may be temporarily disrupted through temporary road or lane closures, or temporary loss of access to parking. Bicycle and pedestrian access could also be temporarily disrupted. Since this compatibility issue is temporary in nature, the issue is considered less than significant. Operation of the proposed bikeways are not expected to result in land use conflicts because bike routes or lanes would be located on rights-of-way as part of the existing circulation infrastructure. Therefore, this impact is considered **less-than-significant**.

AA Under the No Project alternative, no new or modified on-street bikeways would be constructed. Therefore, **no impact would occur**.

Off Street Bikeways

PP, AB Construction of the Proposed Project and Alternative B, the Resource Sensitive Alternative, would result in new or modified off-street bikeways. Land uses typical to the proposed off-street bike paths include residential, parks/recreational, agricultural, and commercial/industrial areas. Compatibility of proposed bike paths with each of these kinds of land uses are discussed below.

LAND USE COMPATIBILTY WITH RESIDENTIAL AREAS

Residential areas that would be directly adjacent to bike paths could be subject to adverse impacts due to the potential for increase in noise from construction and minimal noise from bikeway operation. Additionally, degradation of resident safety and privacy could result as bikeways could provide access to areas previously closed to the public or intensify public use causing residents now accustomed to outdoor privacy to be subject to the presence of more users in those areas. This is **considered an incompatibility issue.**

LAND USE CONSISTENCY WITH PARKS AND RECREATION LANDUSES

The addition of bicycle routes near schools and parks is considered to have an overall beneficial effect. However, new off-street bikeways could result

in potential land use conflicts with existing park and recreational uses. Conflicts between fast moving bikeway users and slow moving park users (hikers, joggers, pedestrians) could arise if design or route modifications that would separate these uses were not implemented. This is **considered an incompatibility issue.**

LAND USE COMPATIBILTY WITH DRAINAGE CHANNELS

Adoption of the Bikeway Master Plan could result in bikeways that cross or are constructed alongside drainage channels which are compatible uses in most locations. The potential for conflict between bikeway use and operation of drainage channels arises if fill materials are used to construct bikeways. Fill materials have the potential to interfere with channel flow capacity and could increase the risk of flooding upstream. This is **considered an incompatibility issue.**

LAND USE COMPATIBILTY WITH AGRICULTURAL USES

The addition of off-street bikeways could encroach into areas supporting agricultural production. Off-street bikeways through agricultural areas would most likely affect narrow strips of agricultural land. However, impacts could occur by displacing agricultural production, while indirect impacts such as trespassing and vandalism could occur on adjacent agricultural lands following project implementation. Farming operations could also be a hazard to bicyclists. Farm equipment and pesticide spraying could be potentially dangerous to bikeway users. Adoption of the Bikeway Master Plan could result in potential land conflicts with areas that are in agricultural use because use of bikeways could conflict with agricultural operations. This is **considered an incompatibility issue.**

LAND USE COMPATIBILTY WITH COMMERCIAL AND INDUSTRIAL USES

Implementation of the Proposed Project would result in the construction of bikeways though commercial and industrial areas. Construction of new on- and off-street bikeways should not result in land use conflicts with existing or planned commercial and industrial land uses because proposed bikeways would likely be sited on existing circulation infrastructure or through vacant parcels which have been determined to be compatible with these areas. The proposed bikeways would be compatible with the type of activity that occurs in commercial and industrial land uses. **No impact would occur.**

AA Under the No Project alternative, no new or modified off-street bikeways would be constructed and no potential land use conflicts would arise. **No impact would occur.**

CONSISTENCY WITH ADOPTED PLANS AND POLICIES

This section discusses any inconsistencies between the Proposed Project and Project Alternatives with existing adopted plans and policies. The consistency analysis considers the adopted goals and policies of the various plans identified in the setting discussion above. Mitigation measures are not identified for any inconsistencies identified; however, these inconsistencies may be considered in the determination of physical environmental impacts identified in the technical sections of this document.

Consistency with the City of Sacramento General Plan

PP, AB The Proposed Project and Alternative B, the Resource Sensitive Alternative, would be consistent with the City of Sacramento General Plan Policies related to development and maintenance of bikeway facilities because the Bikeway Master Plan Amendments would become part of the General Plan.

Goal, policies, and action contained in the City of Sacramento General Plan promote development of a bikeway plan, coordination between jurisdictions in the development of bikeways, and regular maintenance of bikeways. These General Plan provisions are consistent with the goals, policies, and programs contained in the Proposed Project and Alternative B for the development and maintenance of bikeways. The Proposed Bikeway Master Plan Amendments would not result in a change in General Plan land use designations. Should the Proposed Bikeway Master Plan Amendments be adopted, it would be incorporated into the General Plan. Therefore, **no impact would occur.**

AA Under the No Project alternative, no new or modified on- and off- street bikeways would be created. While the City of Sacramento currently has an extensive bikeways system, the No Project Alternative would not fully maximize bikeway goals, policies, and actions envisioned in the City of Sacramento General Plan. **No impact would occur.**

Consistency with the 2010 Sacramento City/County Bikeway Master Plan

PP, AB The 2010 Sacramento City/County Bikeway Master Plan is a planning document that has been used to guide development of future bikeways throughout the City and County of Sacramento though 2010. The 2010 Sacramento City/County Bikeway Master Plan contains numerous objectives, goals, policies, programs, planning criteria, and implementation measures throughout the document. The Proposed Project and Alternative B, the Resource Sensitive Alternative, will be consistent with the policies related to development and maintenance of bikeway facilities throughout Sacramento. Therefore, **no impact would occur.**

AA Under the No Project alternative, no new or modified on- and off- street bikeways would be created. While the City of Sacramento currently has an extensive bikeways system, the No Project Alternative would not fully maximize bikeway goals, policies, and actions envisioned in the Bikeway Master Plan. **No impact would occur.**

Consistency with the Airport/ Meadowview Community Plan

PP, AB The Proposed Project and Alternative B, the Resource Sensitive Alternative, would be consistent with the Airport/Meadowview Community Plan Policies related to development and maintenance of bikeway facilities because the Bikeway Master Plan Amendments would become part of the Community Plan.

Goals, policies, and actions contained in the Airport/Meadowview Community Plan promote development of a bikeway plan as an alternative commute option, and to provide bike paths as a form of recreation. These Community Plan provisions are consistent with the goals, policies, and programs contained within the Proposed Project and Alternative B, the Resource Sensitive Alternative. Therefore, **no impact would occur.**

AA Under the No Project alternative, no new or modified off-street bikeways would be constructed and no potential conflicts with the Airport Meadowview Community Plan would arise. **No impact would occur.**

Consistency with the South Sacramento Community Plan

PP, AB The Proposed Project and Alternative B, the Resource Sensitive Alternative, would be consistent with the South Sacramento Community Plan policies related to development and maintenance of bikeway facilities because the Bikeway Master Plan Amendments would become part of the Community Plan.

Goals, policies, and actions contained in the South Sacramento Community Plan promote development of a bikeway plan as an alternative commute option, and to provide bike paths to growth areas These Community Plan provisions are consistent with the goals, policies, and programs contained within the Proposed Project and Alternative B, the Resource Sensitive Alternative. Therefore, **no impact would occur.**

AA Under the No Project alternative, no new or modified off-street bikeways would be constructed and no potential conflicts with the South Sacramento Community Plan would arise. **No impact would occur.**

Consistency with the South Natomas Community Plan

PP, AB

The Proposed Project and Alternative B, the Resource Sensitive Alternative, would be consistent with the South Natomas Community Plan Policies related to development and maintenance of bikeway facilities because the Bikeway Master Plan Amendments would become part of the Community Plan.

Goals, policies, and actions contained in the South Natomas Community Plan promote development of a bikeway plan to provide a system of on-street bicycle routes for bicycle commuters and off-street bicycle paths for recreational bicyclists. These Community Plan provisions are consistent with the goals, policies, and programs contained within the Proposed Project and Alternative B, the Resource Sensitive Alternative. Therefore, **no impact would occur.**

AA

Under the No Project alternative, no new or modified off-street bikeways would be constructed and no potential conflicts with the South Natomas Community Plan would arise. **No impact would occur.**

Consistency with the North Natomas Community Plan

PP, AB

The Proposed Project and Alternative B, the Resource Sensitive Alternative, would be consistent with the North Natomas Community Plan policies related to development and maintenance of bikeway facilities because the Bikeway Master Plan Amendments would become part of the Community Plan.

Goals, policies, and actions contained in the North Natomas Community Plan promote development of a bikeway plan to provide an alternative commute mode and to provide recreational opportunities for bicyclists. These Community Plan provisions are consistent with the goals, policies, and programs contained within the Proposed Project and Alternative B, the Resource Sensitive Alternative. Therefore, **no impact would occur.**

AA

Under the No Project alternative, no new or modified off-street bikeways would be constructed and no potential conflicts with the North Natomas Community Plan would arise. **No impact would occur.**

Consistency with the City of Sacramento Parks and Recreation Master Plan Phase I

PP, AB

The Proposed Project and Alternative A, the Resource Sensitive Alternative, would maintain and update the facilities of Sacramento bikeways consistent with the policies of the Master Plan. Potential conflicts with existing park and recreation district plans could occur if bikeways are site through areas

that are not designed to accommodate bikeway use. Project specific planning will be undertaken to ensure that bikeways are designed to be compatible with park usage. Therefore, **no impact would occur.**

AA Under the No Project alternative, no new or modified on- and off- street bikeways would be created. While the City of Sacramento currently has an extensive bikeways system, the No Project Alternative would not fully maximize bikeway goals, policies, and actions envisioned within the City of Sacramento Parks and Recreation Master Plan. **No impact would occur.**

Consistency with the Sacramento River Parkway Plan

PP The Proposed Project and Alternative B, the Resource Sensitive Alternative, would be consistent with the Sacramento River Parkway Plan Policies related to development and maintenance of bikeway facilities.

Goals, policies, and actions contained in the Sacramento River Parkway Plan promote development of a bikeway plan to provide bike paths as a form of recreation, and to create a continuous, lineal on-River Parkway with a bicycle and pedestrian trail along the Sacramento River. The Sacramento River Parkway Plan provisions are consistent with the goals, policies, and programs contained within the Proposed Project and Alternative B, the Resource Sensitive Alternative. Therefore, **no impact would occur.**

AA Under the No Project alternative, no new or modified on- and off- street bikeways would be created. While the City of Sacramento currently has an extensive bikeways system, the No Project Alternative would not fully maximize bikeway goals, policies and actions envisioned in the Sacramento River Parkway Plan. **No impact would occur.**

CHAPTER 6.0

ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

CHAPTER 6.0

ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

6.1 INTRODUCTION TO THE ANALYSIS

6.1.1 INTRODUCTION

Chapter 6.0 of the EIR contains individual sections that describe the potential environmental impacts of the Proposed Project and alternatives. Each topical section describes the existing setting and background information necessary to help the reader understand the conditions that would cause an impact to occur. In addition, each section includes a discussion that describes how an impact is determined to be significant or not significant. Finally, the individual sections recommend mitigation measures to reduce significant impacts.

SCOPE OF THE ENVIRONMENTAL IMPACT REPORT

The environmental issues addressed within this EIR include:

Air Quality (6.2)
Noise (6.3)
Biological Resources (6.4)
Transportation and Circulation (6.5)

The mitigation for the Bikeway Master Plan is designed from a program level and will be applied depending on future phases within the city. These future phases are dependent on the success of fund procurement by the City of Sacramento. Future environmental analysis of the impacts and mitigation measures will be undertaken at the time the future phases are proposed.

EVALUATION OF THE ALTERNATIVES IN THE EIR

As provided for in the CEQA Guidelines Section 15126.6, the range of reasonable alternatives to be included in an EIR must consist of alternatives that would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project. Two alternatives studied in this EIR represent a range designed to avoid or substantially lessen the significant effects of the project.

SIGNIFICANCE OF ENVIRONMENTAL IMPACTS

Whenever possible and reasonable, significance criteria are established which serve as the benchmark for determining impacts. Significance criteria are identified for each environmental category to determine if the project will result in a significant environmental impact when evaluated against the environmental setting. The significance criteria vary depending on the environmental category. For example, the significance criterion for carbon monoxide in the air quality discussion is based on state and federally adopted parts per million (ppm) standards, while the noise significance criteria is based on decibel thresholds identified in the City's adopted General Plan. In general, effects can be either significant (above threshold), or less than significant (below threshold).

CUMULATIVE IMPACTS

According to CEQA *Guidelines* Section 15355, "cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." CEQA requires that cumulative impacts be discussed when the project's incremental effect is cumulatively considerable (*Guidelines* Section 15130(a)). These impacts are referenced where appropriate in the relevant sub-chapter by topic, and are also discussed in Section 7.4 Cumulative Impacts.

UNAVOIDABLE IMPACTS

An unavoidable impact is an impact that cannot be feasibly mitigated to a less than significant level. In each environmental section and Chapter 7.0, impacts that cannot be avoided are identified as *significant unavoidable impacts*.

SOCIO-ECONOMIC IMPACTS

In accordance with CEQA, this document focuses on potentially significant environmental consequences. Although there may be socio-economic consequences regarding the proposed project and alternatives, many of these issues relate to socio-economic concerns that do not clearly result in a physical impact. Section 15131 of the CEQA *Guidelines* states that an EIR may include economic or social information, however, "economic and social effects of a project shall not be treated as significant effects on the environment." An exception to this is in instances where a clear chain of cause and effect between the social or economic issues can be linked to a physical impact. In this case, the EIR discusses the physical impact that will result from the social or economic impact.

6.2 AIR QUALITY

6.2.1 INTRODUCTION

The Air Quality section of the EIR analyzes the potential short-term and cumulative impacts resulting from the construction and operation of the Proposed Project. The focus of the air quality discussion is on pollutants of particular concern for the Sacramento Metropolitan Area, which are ozone, carbon monoxide, and particulate matter.

6.2.2 SETTING

CLIMATE

Impacts on air quality are dependent upon the locations of air pollutant sources and the amounts of pollutants emitted. Meteorological and topographical conditions, however, are also important. The project is located in the City of Sacramento, which lies within Sacramento Valley Air Basin (Sacramento Valley). The climate of the Sacramento Valley is Mediterranean in character, with mild, rainy winter weather from November through March, and warm to hot, dry weather from May through September. The geographic features giving shape to Sacramento Valley are the Coast Range to the west, the Sierra Nevada Mountains to the east, and the Cascade Range to the north. These ranges channel winds through Sacramento Valley, but also inhibit dispersion of pollutant emissions.

The City is about 50 miles northeast of the Carquinez Strait, a sea-level gap between the Coast Range and the Diablo Range. The prevailing winds are from the south, primarily because of marine breezes through the Carquinez Strait, although during winter the sea breezes diminish and winds from the north occur more frequently.

Vertical and horizontal movement of air is an important atmospheric component involved in the dispersion of air pollutants. Movement of air allows for the dispersion and subsequent dilution of air pollutants. Without movement, air pollutants can collect and concentrate in a single area, increasing the health hazards associated with air pollutants. For instance, in the winter months, Sacramento Valley experiences a high percentage of calm atmospheric conditions. These calm conditions result in stagnation of valley air and increased air pollution.

Persistent inversions occur frequently in Sacramento Valley, especially during late fall and early spring, and act to restrict vertical dispersion of pollutants released near ground level. Inversions characteristic to Sacramento County involve nighttime cooling of air near the valley surface. The sun warms the air above the nocturnally cooled surface, creating the inversion that prohibits vertical mixing.

OZONE

Ozone is a reactive pollutant, which is not emitted directly into the atmosphere, but is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROG) and nitrogen oxides (NO_x). ROG and NO_x are known as precursor compounds for ozone. Significant ozone production generally requires ozone precursors

to be present in a stable atmosphere with strong sunlight for approximately three hours. Ozone is a regional air pollutant because it is not emitted directly by sources, but is formed downwind of sources of ROG and NO_x under the influence of wind and sunlight. Ozone concentrations tend to be higher in the late spring, summer, and fall, when the long sunny days combine with regional subsidence inversions to create conditions conducive to the formation and accumulation of secondary photochemical compounds, like ozone. Ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and can cause substantial damage to vegetation and other materials.

CARBON MONOXIDE

Carbon monoxide (CO) is a non-reactive pollutant that is a product of incomplete combustion and is mostly associated with motor vehicle traffic. High CO concentrations develop primarily during winter when periods of light winds combine with the formation of ground level temperature inversions (typically from the evening through early morning). These conditions result in reduced dispersion of vehicle emissions. Motor vehicles also exhibit increased CO emission rates at low air temperatures. When inhaled at high concentrations, CO combines with hemoglobin in the blood and reduces the oxygen-carrying capacity of the blood. This results in reduced oxygen reaching the brain, heart, and other body tissues. This condition is especially critical for people with cardiovascular diseases, chronic lung disease or anemia.

INHALABLE PARTICULATE MATTER (PM_{10})

Inhalable particulate matter (PM_{10}) and "fine" particulate matter ($PM_{2.5}$)[1] consist of particulate matter that is 10 microns or less in diameter and 2.5 microns or less in diameter, respectively. (A micron is one-millionth of a meter.). PM_{10} and $PM_{2.5}$ represent fractions of particulate matter that can be inhaled into the air passages and the lungs, and can cause adverse health effects. Particulate matter in the atmosphere results from many kinds of dust- and fume-producing industrial and agricultural operations, fuel combustion, and atmospheric photochemical reactions. Some sources of particulate matter, such as demolition and construction activities, are more local in nature, while others, such as vehicular traffic, have a more regional effect. Very small particles of certain substances (e.g., sulfates and nitrates) can cause lung damage directly, or can contain adsorbed gases (e.g., chlorides or ammonium) that may be injurious to health. Particulates also can damage materials and reduce visibility.

6.2.3 REGULATORY AGENCIES

Regulation of air quality is achieved through national and state ambient air quality standards and emission limits for individual sources of air pollutants. The federal Clean Air Act required the U.S. Environmental Protection Agency (EPA) to identify National Ambient Air Quality Standards (national standards) to protect public health and welfare. National standards have been established for ozone, CO, nitrogen dioxide, sulfur dioxide, particulate matter (PM_{10} and $PM_{2.5}$), and lead. The U.S. EPA publishes criteria documents to justify the choice of standards. California has adopted

1 New air quality standards for $PM_{2.5}$ were established by the EPA in July 1997. Monitoring for this pollutant began in January 1999. $PM_{2.5}$ samples are collected in Sacramento County every day, however, monitoring data and threshold standards have not been made available at this time by the California Air Resources Board.

ambient air quality standards (state standards) that are generally more stringent than their national counterparts and has adopted standards for some pollutants for which there are no corresponding national standards. **Table 6.2-1** presents both sets of standards for pollutants analyzed in this EIR.

The federal Clean Air Act requires that the U.S. EPA designate regions as "attainment" or "nonattainment" with respect to the national standards. Under the state California Clean Air Act, patterned after the federal Clean Air Act, areas have also been designated as attainment or nonattainment with respect to the state standards. The project site lies within Sacramento Valley Air Basin, which is currently designated as nonattainment for state ozone standard and 24-hour PM_{10} standard. A subregion within Sacramento Valley Air Basin is designated nonattainment for the national 1-hour ozone standard as well; this subregion includes all or portions of Sacramento, Yolo, Solano, El Dorado, Placer, and Sutter counties.

Sacramento County is officially designated as nonattainment for the national PM_{10} and 1-hour ozone standards, but, based on questions concerning the validity of the data supporting the nonattainment designation, the Sacramento Metropolitan Air Quality Management District (SMAQMD) has requested U.S. EPA to redesignate the county to attainment for the national PM_{10} standard, which is currently under review by U.S. EPA. With respect to CO, the urbanized portion of Sacramento County is considered a "maintenance" attainment area for the national standard, which indicates that the area had once been designated nonattainment for that pollutant, but is now designated as attainment in light of improved conditions.

The federal Clean Air Act also requires nonattainment areas to prepare air quality plans that include strategies for achieving attainment. Air quality plans developed to meet federal requirements are referred to as State Implementation Plans (SIPs). The California Clean Air Act also requires nonattainment areas, except for state PM_{10} nonattainment areas, to prepare plans that include strategies that demonstrate attainment, or alternatively, that implement all feasible control measures. Thus, just as regions in California have two sets of designations, many regions in California also have two sets of air quality plans: one to meet federal requirements and another to meet state requirements.

The 1994 ozone SIP, the *Sacramento Area Regional Ozone Attainment Plan*, is the current federal air quality plan for the Sacramento metropolitan area. The SIP predicts attainment of the national one-hour ozone standard by 2005 (SMAQMD, 1994a).

To attain the standard, the 1994 ozone SIP relies heavily on stationary source controls and on statewide mobile source control programs. With respect to the national CO standard, the revised SIP includes a "maintenance" plan, which demonstrates how Sacramento County will continue to maintain concentrations below the standard now that the county's designation is "attainment."

TABLE 6.2-1
AMBIENT AIR QUALITY STANDARDS APPLICABLE IN CALIFORNIA

Pollutant	Symbol	Average Time	Standard, as parts per million		Standard, as micrograms per cubic meter		Violation Criteria	
			California	National	California	National	California	National
Ozone	O_3	1 hour	0.09	0.12	180	235	If exceeded	If exceeded on more than 3 days in 3 years
		8 hours	N/A	0.08	N/A	N/A	N/A	If exceeded on more than 3 days in 3 years
Carbon monoxide	CO	8 hours	9.0	9	10,000	10,000	If exceeded	If exceeded on more than 1 day per year
		1 hour	20	35	23,000	40,000	If exceeded	If exceeded on more than 1 day per year
(Lake Tahoe only)		8 hours	6	N/A	7,000	N/A	If exceeded	N/A
Nitrogen dioxide	NO_2	Annual average	N/A	0.053	N/A	100	N/A	If exceeded
		1 hour	0.25	N/A	470	N/A	If exceeded	N/A
Sulfur dioxide	SO_2	Annual average	N/A	0.03	N/A	80	N/A	If exceeded
		24 hours	0.05	0.14	131	365	If exceeded	If exceeded on more than 1 day per year
		1 hour	0.25	N/A	665	N/A	N/A	N/A
Hydrogen sulfide	H_2S	1 hour	0.03	N/A	42	N/A	If equaled or exceeded	N/A
Vinyl chloride	C_2H_3Cl	24 hours	0.010	N/A	26	N/A	If equaled or exceeded	N/A
Inhalable particulate matter	PM10	Annual geometric mean	N/A	N/A	30	N/A	If exceeded	N/A
		Annual arithmetic mean	N/A	N/A	N/A	50	N/A	If exceeded
		24 hours	N/A	N/A	50	150	N/A	If exceeded on more than 1 day per year
Fine particulate matter	PM2.5	Annual arithmetic mean	N/A	N/A	N/A	15	N/A	If exceeded
		24 hours	N/A	N/A	N/A	65	N/A	If exceeded on more than 1 day per year
Sulfate particles	SO_4	24 hours	N/A	N/A	25	N/A	If equaled or exceeded	N/A
Lead particles	Pb	Calendar quarter	N/A	N/A	N/A	1.5	N/A	If exceeded no more than 1 day per year
		30 days	N/A	N/A	1.5	60	If equaled or exceeded	N/A

Notes: All standards are based on measurements at 25 C and 1 atmosphere pressure.
National standards shown are the primary (health effects) standards.
N/A = not applicable.

6.2.4 AIR QUALITY PLANS, POLICIES, AND REGULATIONS

PLANS AND POLICIES

The project is located in the Sacramento County portion of the Sacramento Valley Air Basin, which is currently designated "nonattainment" for state and national ozone standards and for the state PM10 standard (Air Resources Board, 2000). The SVAB portion of Sacramento County forms part of a sub region within the Sacramento Valley that is designated as a "severe" nonattainment area with respect to the one-hour ozone standard; this sub region includes all or portions of Sacramento, Yolo, Solano, El Dorado, Placer, and Sutter counties. This area is also designated as a nonattainment area for the state PM_{10} standards. Only the Sacramento County portion of the SVAB is nonattainment for the federal PM_{10} standards. The project area is "attainment" or unclassified with respect to all other state and federal ambient air quality standards. **Table 6.2-2** shows the attainment status of the project area with respect to the federal and state ambient air quality standards for different criteria pollutants.

TABLE 6.2-2
2002 ATTAINMENT STATUS OF THE PROJECT AREA FOR THE CALIFORNIA AND NATIONAL AMBIENT AIR QUALITY STANDARDS

		Attainment Status	
Pollutant	**Averaging Time**	**State Standards**	**National Standards**
Ozone	8-Hour	N/A	Unclassified
	1-Hour	Serious Nonattainment	Severe Nonattainment
Carbon Monoxide	8-Hour	Unclassified	Unclassified/Attainment
	1-Hour	Unclassified	Unclassified/Attainment
Nitrogen Dioxide	Annual Average	N/A	Attainment
	1-Hour	Attainment	N/A
Sulfur Dioxide	Annual Average	N/A	Attainment
	24-Hour	Attainment	Attainment
	1-Hour	Attainment	N/A
Respirable Particulate Matter (PM10)	Annual Arithmetic Mean	N/A	Attainment
	Annual Geometric Mean	Nonattainment	N/A
	24-Hour	Nonattainment	Unclassified
Fine Particulate Matter (PM2.5)	Annual Arithmetic Mean	N/A	Unclassified
	24-Hour	N/A	Unclassified
Lead	Calendar Quarter	N/A	Attainment
	30 Day Average	Attainment	N/A

Notes: N/A – not applicable, state or federal standard does not exist for the combination of pollutant and averaging time.
SOURCE: California Air Resources Board's State and National Area Designation Maps of California http://www.arb.ca.gov/desig/adm/adm2.htm

As noted earlier, the federal and California Clean Air Acts require plans to be developed for areas designated as nonattainment for the federal and state standards. Such plans are to include strategies for attaining the standards. Plans are also required under federal law for areas designated as

maintenance areas for the NAAQS. These plans must include strategies to prevent the maintenance area from slipping back into nonattainment. The 1994 SIP, the Sacramento Area Regional Ozone Attainment Plan, is the current federal ozone plan for the project area, and it predicts attainment of the national one-hour ozone plan by 2005 (Sacramento Metropolitan Air Quality Management District, et. al., 1994.). To attain the standard by 2005, the 1994 ozone SIP relies heavily on local air-district administered, stationary source control programs and on statewide mobile source control programs. The plan was developed on a regional basis with the participation of the five air districts in the region, California Air Resources Board, and the Sacramento Area Council of Governments.

6.2.5 PROJECT SITE AND VICINITY

EXISTING AIR QUALITY

The air quality of the Sacramento Valley is determined by routinely monitoring changes in the quantities of air pollutants in the ambient environment. Air quality is a function of the criteria pollutants emitted locally, the existing regional ambient air quality, and the meteorological and topographic factors, which influence the intrusion of pollutants into the area from sources outside the immediate vicinity.

California Air Resources Board (CARB) and Sacramento Metro Air Quality Management District (SMAQMD) maintain ambient air quality monitoring stations at numerous locations throughout the Valley. **Table 6.2-3** summarizes the highest concentrations of ozone, carbon monoxide, and PM_{10} for the most recent years available (2000-2002) and compares ambient air pollutant concentrations with the corresponding state or national ambient air quality standard.

Monitored CO levels have been trending down over the last several years and have been relatively stable the last few years. The downward trend over the last several years is primarily a result of the use of oxygenated gasoline during the winter CO season. Several exceedances of the state and federal 8-hour standards were recorded in the early 1990's. However, exceedances have not been recorded since then, and Sacramento County was declared an attainment area for the federal CO standard in March 1998.

The state ozone standard has been exceeded up to 27 times each year at the individual monitoring stations shown on **Table 6.2-3**. Exceedances of the federal ozone standard have also been recorded. Substantial year-to-year variations in monitored ozone levels are common. However, no clear trend in ozone levels is demonstrated by monitoring results over the 1990's.

TABLE 6.2-3
AIR QUALITY DATA SUMMARY (2000-2002) FOR THE PROJECT AREA

Station Location	Yearly Monitoring Data 2000	2001	2002
Carbon Monoxide			
Del Paso Manor			
Highest 8-hour concentration	4.60	5.28	3.50
Days above standard (a)	0	0	0
T-Street			
Highest 8-hour concentration	4.43	4.41	4.31
Days above standard (a)	0	0	0
El Camino and Watt			
Highest 8-hour concentration	6.25	4.75	4.16
Days above standard (a)	0	0	0
North Highlands-Blackfoot Way			
Highest 8-hour concentration	3.07	3.18	3.13
Days above standard (a)	0	0	0
3801 Airport Road			
Highest 8-hour concentration	4.19	3.59	3.23
Days above standard (a)	0	0	0
PM_{10}			
Del Paso Manor			
Highest daily concentration (ug/m3)	58.0	66.0	84.0
State Average (ug/m3)	18	16	21
National Average (ug/m3)	21	18	24
Recorded days above standard (d)	2	2	5
T-Street			
Highest 24-hour concentration (ug/m3)	64.0	89.0	77.0
State Average (ug/m3)	22	22	23
National Average (ug/m3)	22	24	26
Recorded days above standard (d)	5	5	3
North Highlands-Blackfoot Way			
Highest 24-hour concentration (ug/m3)	82.0	64.0	53.0
State Average (ug/m3)	20	20	21
National Average (ug/m3)	22	23	17
Recorded days above standard (d)	2	2	1
Branch Center			
Highest 24-hour concentration (ug/m3)	56.0	78.0	77.0
State Average (ug/m3)	29	26	25
National Average (ug/m3)	26	26	29
Recorded days above standard (d)	2	7	7
Health Dept. Stockton Blvd			
Highest 24-hour concentration (ug/m3)	86.0	58.0	85.0
State Average (ug/m3)	20	19	21
National Average (ug/m3)	21	14	25
Recorded days above standard (d)	2	1	2

TABLE 6.2-3 CONTINUED

3801 Airport Road			
Highest 24-hour concentration (ug/m3)	73.0	51.0	73.0
State Average (ug/m3)	17	15	21
National Average (ug/m3)	18	14	26
Recorded days above standard (d)	2	1	4
PM2.5			
Del Paso Manor			
Highest 24-hour concentration (ug/m3)	N/A	38	75
Annual mean (ug/m3)	N/A	8.9	12.1
Number of days above standard (e)	N/A	0	3
T Street			
Highest 24-hour concentration (ug/m3)	67	72	73
Annual mean (ug/m3)	12.3	11.6	14.3
Number of days above standard (e)	1	1	4
Ozone 1-Hour			
Del Paso Manor			
1st High (ppm)	0.124	0.142	0.135
2nd High (ppm)	0.123	0.118	0.126
Days above standard (b)	13	11	32
T-Street			
1st High (ppm)	0.101	0.113	0.109
2nd High (ppm)	0.098	0.11	0.107
Days above standard (b)	3	2	6
Folsom-Natoma Street			
1st High (ppm)	0.126	0.132	0.139
2nd High (ppm)	0.120	0.129	0.138
Days above standard (b)	17	27	27
North Highlands-Blackfoot Way			
1st High (ppm)	0.120	0.132	0.123
2nd High (ppm)	0.118	0.112	0.119
Days above standard (b	10	12	14
Elk Grove-Bruceville Road			
1st High (ppm)	0.104	0.112	0.096
2nd High (ppm)	0.099	0.110	0.087
Days above standard (b)	3	10	1
3801 Airport Road			
1st High (ppm)	0.099	0.103	0.100
2nd High (ppm)	0.096	0.100	0.100
Days above standard (b	4	5	4
Ozone 8-hour			
Del Paso Manor			
1st High (ppm)	0.100	0.107	0.114
2nd High (ppm)	0.096	0.097	0.109
Days above standard (c)	9	6	23
North Highlands – Blackfoot Way			

1st High (ppm)	0.100	0.094	0.101

TABLE 6.2-3 CONTINUED

2nd High (ppm)	0.097	0.094	0.098
Days above standard (c)	7	7	11
T Street			
1st High (ppm)	0.079	0.094	0.091
2nd High (ppm)	0.077	0.087	0.089
Days above standard (c)	0	3	3
3801 Airport Road			
1st High (ppm)	0.089	0.091	0.081
2nd High (ppm)	0.080	0.090	0.081
Days above standard (c)	1	2	0

Notes:
(a) Days above standard = days above state 8-hour standard of 9 ppm.
(b) Days above standard = days above state 1-hour standard of 0.09 ppm.
(c) Days above standard = days above federal 8-hour standard of 0.08 ppm
(d) Days above standard = days above state 24-hour standard of 30 ppm.
(e) Days above standard = days above federal 24-hour standard of 65 ppm.

SOURCE: California Air Resources Board - http://www.arb.ca.gov

The state ozone standard has been exceeded up to 13 times each year at the individual monitoring stations shown on Table 3. Exceedances of the federal ozone standard have also been recorded. Substantial year-to-year variations in monitored ozone levels are common. However, no clear trend in ozone levels is demonstrated by monitoring results over the 1990's.

The state 24-hour PM_{10}standard has been exceeded between 1% and 7% of the time. Neither the state nor federal annual PM_{10}standards have been exceeded during the period.

Monitoring for $PM_{2.5}$ has begun in Sacramento County at three locations. The T Street site, in the downtown area, began sampling in December 1998. The Del Paso Manor site, in North Sacramento, began sampling in January 1999. The Health Department Stockton Boulevard site, in Central Sacramento, also began in February 1999. Preliminary data indicate the 24-hour federal standard at all three sites have been exceeded.

SENSITIVE RECEPTORS

Some receptors are considered more sensitive than others to air pollutants. The reasons for greater sensitivity than average include pre-existing health problems, proximity to the emissions source, or duration of exposure to air pollutants. Land uses such as primary and secondary schools, hospitals, and convalescent homes are considered to be relatively sensitive to poor air quality because the very young, the old, and the infirm are more susceptible to respiratory infections and other air quality-related health problems than the general public. Residential areas are considered sensitive to poor air quality because people in residential areas are often at home for extended periods. Recreational land uses are moderately sensitive to air pollution, because vigorous exercise associated with recreation places a high demand on the human respiratory function. Sensitive land uses in the vicinity of the project site would include parks, schools, and residential areas where off street bikeway construction related emissions have the potential to create short term impacts on air quality.

The Proposed Project result in bikeways in proximity to streets with high volumes of traffic, thereby exposing bicyclists to high CO levels that may exceed state or federal standards, particularly at peak hours. As bicyclists using the bikeways would be inhaling larger volumes of air than normal due to exercise, the physiological effects of CO and ozone would be of greater concern to bicyclists, particularly those with special conditions such as respiratory disorders. The effects of degraded air quality due to CO on bicyclists would be of particular concern along major arterials during peak traffic periods.

6.2.6 IMPACTS AND MITIGATION MEASURES

The Proposed Project would include placement of new bikeway alignments through the City of Sacramento and the removal of several previously proposed alignments within the North Natomas Community Plan area. This section of the air quality study identifies impacts the Proposed Project would have on the air quality environment. The following is a description of:

- criteria used to determine the significance of air quality impacts,
- methods used to conduct the air quality analysis, and
- potential air quality impacts of the proposed project.

CRITERIA FOR DETERMINING SIGNIFICANCE

According to Appendix G of the State CEQA Guidelines, a project will normally have a significant effect on the environment if it will violate any ambient air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations.

In addition to the overall criteria described above, the SMAQMD adopted a series of significance thresholds. Under these thresholds, a project is considered to have a significant short-term construction-related impact if it would generate more than 85 pounds per day (ppd) of NO_x, or result in an exceedance of the 24-hour average CAAQS for PM_{10}. The SMAQMD has not established construction-related significance thresholds for ROG. A project is considered to have a significant long-term operational impact if it would generate more than 65 ppd of ROG or NOx (Sacramento Metropolitan Air Quality Management District, 2003).

IMPACT ASSESSMENT METHODOLOGY

Construction of bike paths and bike lanes would result in the temporary generation of ROG, NOx, CO, and PM10 emissions. Bicycle lane improvements can be grouped into two categories: on- and off-road. The addition of on-road bike travel lanes could vary widely, ranging from simply restriping existing travel lanes to adding additional bike lanes. For restriping of existing roads, emissions would be limited to the paints used in restriping, and from the vehicles used in the restriping efforts. For road widening projects designed to add bike lanes, emissions could be more substantial, depending on the amount and type of construction equipment required. The use of heavy-duty construction equipment could be used for a variety of activities, including demolition of existing infrastructure,

utility relocation, grading, and paving. Heavy-duty construction equipment would also likely be required for road widening projects that involve the crossing of canals, roadways, or other obstacles.

Construction of off-road bike paths would require the use of off-road heavy-duty construction equipment for grubbing, grading, and paving. The number and type of equipment will vary, depending on the obstacles faced during construction.

The SMAQMD's road construction model was used to estimate emissions associated with a typical bike construction project requiring the use of heavy-duty construction equipment (Christensen, pers. comm.). **Table 6.2-4** shows the emission estimates for a typical construction project. These estimates assume the following types and number of equipment are used during each phase:

- Grubbing/Land Clearing: 1 dozer and 1 scraper
- Grading/Excavation: 1 excavator, 1 grader, 1 loader, 1 scraper
- Drainage/Utilities/Subgrade: 1 compactor, 1 grader, 1 scraper, 1 trencher
- Paving: 1 paver, 1 other paving equipment, 1 roller

TABLE 6.2-4
ROAD CONSTRUCTION EMISSIONS MODEL, VERSION 5.1
Emission Estimates from Construction of Bike Lanes

Project Phases	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	PM10 (lbs/day)
Grubbing/Land Clearing	8	41	57	23
Grading/Excavation	8	46	60	23
Drainage/Utilities/Sub-Grade	8	48	61	23
Paving	3	14	26	1
Maximum (pounds/day)	8	48	61	23

Notes:
Project Start Year: 2004
Project Length (months): 2
Total Project Area (acres): 2
Maximum Area Disturbed/Day (acres): 2
Total Soil Imported/Exported (yd^3/day): 0

IMPACTS AND MITIGATION MEASURES

Impact 6.2-1 Air Quality Impacts on Bikeway Users

PP, AB Adoption of the Proposed Project and the Alternative B, the Resource Sensitive Alternative would result in bikeways in proximity to streets with high volumes of traffic, thereby a potential consequence would be the exposure of bicyclists to CO levels that may exceed state or federal standards, particularly at peak traffic hours. As bicyclists using the bikeways would be inhaling larger volumes of air than normal

due to exercise, the physiological effects of CO and ozone would be of greater concern to bicyclists, particularly those with special conditions such as respiratory disorder. The effects of degraded air quality due to CO on bicyclists would be of particular concern along major arterials during peak traffic periods. However, all air pollution standards have a 1 hour or greater averaging period. Consequently, because bicyclists pass through congested intersections in much less than one hour, cyclists are unlikely to be exposed to pollutant concentrations in excess of the state or federal ambient air quality standards. This impact is considered **less than significant.**

AA Under the No Project Alternative there would be no construction of additional bikeway facilities. **No impact would occur.**

Mitigation **6.2-1 Air Quality Impacts on Bikeway Users**

No mitigation is required.

Impact **6.2-2 Increase in Construction Emissions of ROG, NOx, CO, and PM10.**

PP, AB The amendments to the 2010 Sacramento City/County Bikeway Master Plan include adding new alignments throughout the City and removal of several proposed alignments within the North Natomas area. Construction emissions will not be generated for those North Natomas area alignments being removed from the Master Plan. This is a beneficial air quality effect of the Master Plan. Construction emissions will be generated, however, from the alignments that are being added to the Master Plan. The remainder of this impact discussion focuses on the added alignments that will generate construction emissions.

The equipment assumptions used to estimate bike lane construction as shown in **Table 6.2-4** emissions are relatively conservative. However, even with these conservative assumptions, **Table 6.2-4** estimates that emissions of NOx are less than the SMAQMD's significance thresholds. **Table 6.2-4** estimates of ROG emissions are considered minor and, therefore, the impact is considered **less than significant.** Also, although **Table 6.2-4** estimates that bike lane construction would generate emissions of CO, this emission increase is considered **less than significant** because the emissions would be relatively minor and because the Sacramento Valley Air Basin is in attainment for the state and federal CO standards.

The SMAQMD has not established a pounds per day threshold for PM_{10}, instead it requires that an assessment be conducted to determine whether a project would lead to violations of the California 24-hour PM_{10} standards. Compliance with the SMAQMD's Rule 403 – Fugitive Dust will reduce emissions by 50% to approximately 12 pounds per day. These are conservative estimates that are based on road construction. Bike lane construction would likely generate lower levels of PM_{10}. By complying with the District's Rule 403 – Fugitive Dust, PM_{10} emissions will be reduced to **less than significant** levels.

Mitigation **6.2-2 Generation of Construction-Related Emissions**

Implementation of the measures listed below will reduce the Proposed Project and Alternative B, the resource sensitive alternative, impacts to a less than significant level. Further project specific analysis and mitigation will be required when design details and construction methods of the proposed site preparation phases are available.

a. Prior to construction of any future phase of the project, a project specific analysis of construction emissions shall be conducted and additional project specific mitigation measures may be employed.

b. Based on the project-specific analysis, the size and schedule of bikeways to be developed at a single time may be limited. Mitigation measures, such as the following, shall be employed to reduce emission impacts to a less than significant threshold.

   If PM_{10} thresholds are exceeded, the following mitigation measures shall be considered:

   - Enclose, cover, or water twice daily all soil piles,
   - Install automatic sprinkler system on all soil piles,
   - Water all exposed soil twice daily,
   - Water all exposed soil with adequate frequency to keep soil moist at all times,
   - Water all haul roads twice daily,
   - Pave all haul roads,
   - Maintain at least two feet of freeboard,
   - Cover load of all haul/dump trucks securely,
   - Apply nontoxic soil stabilizer to all inactive construction areas,
   - Replace groundcover in disturbed areas quickly,
   - Reduce speeds on all unpaved roads to 15 miles per hour or less,
   - Properly maintain equipment,
   - Use methanol, natural gas, propane, or butane powered equipment instead of diesel, and
   - Develop and implement trip reduction plans.

   If ROG thresholds are exceeded, the following mitigation measures shall be considered:

   - Properly maintain equipment,
   - Use methanol, natural gas, propane, or butane powered equipment instead of diesel,
   - Develop and implement trip reduction plans,
   - Use asphalt with a VOC content less than compliance levels, and
   - Use architectural coatings with VOC content less than compliance levels.

If NO_x thresholds are exceeded, the following mitigation measures shall be considered:

- Properly maintain equipment,
- Develop and implement trip reduction plans, and
- Use NO_x-reducing alternative fuels in construction equipment engines.

During bike lane construction, the following measures shall be used to minimize fugitive dust:

- Use, where feasible, water or chemicals for control of dust in the demolition of existing buildings or structures, during construction operations, and in the clearing of land, and
- Apply water, asphalt oil, or suitable chemicals on dirt roads, material stockpiles, or other surfaces that can give rise to airborne dusts

Significance after Mitigation

Less Than Significant.

Impact **6.2-3 Odors from Construction-Related Emissions**

PP, AB Implementation of the overall Bikeway Master Plan Amendments would result in the generation of odors from construction-related emissions. Improvements, renovations, and new construction will occur as funds become available. The generation of odors from construction related emissions would depend upon the amount and type of construction planned under each phase.

The use of diesel engines could result in the generation of undesirable odors from the engine exhaust. However, the generation of odors would be temporary, and would not be expected to be of a substantial magnitude. Because the generation of odors would be temporary and are not expected to be substantial, the impacts would be **less-than-significant.**

AA The No Project Alternative does not include specific Bikeway Master Plan Amendments. Therefore, there would be no odors from construction-related emissions. **No impact would occur.**

Mitigation **6.2-3 Odors from Construction-Related Emissions**

No mitigation is required.

Impact **6.2-4 Generation of Operational Emissions**

PP, AA, AB The Proposed Project and Alternative B, the Resource Sensitive Alternative, include both adding and deleting alignments throughout the City. The No Project Alternative would not add or delete bikeway alignments and would not create any operational emissions. For those bikeway alignments that will be added, use of those alignments would not directly increase ROG, NOx, or PM10 emissions because bicycles are non-polluting modes of transportation. To the extent that the additional bike lanes induce people to switch a portion of their travel from motorized to non-motorized uses, then the improvements to existing bikeways will reduce emissions of regional ozone precursors and PM_{10}.

The elimination of certain alignments within the North Natomas area may also affect air quality by reducing the number of trips that might have switched from polluting to non-polluting modes of transportation. Consequently, by eliminating these alignments, the potential decrease in emissions that would occur as people switched from polluting to non-polluting modes of travel would not occur.

Adding and removing bikeway alignments will not generate operational emissions as bicycle use is a non-polluting mode of transportation. **No impact would occur.**

Mitigation **6.2-4 Generation of Operational Emissions**

No mitigation is required.

6.3 NOISE

6.3.1 INTRODUCTION

This section discusses the noise environment in the project vicinity, and identifies potential impacts and mitigation measures related to the Proposed Project. Specifically, this section analyzes potential noise impacts due to the construction and operation of the proposed Bikeway Master Plan facilities relative to applicable noise criteria and to the existing ambient noise environment.

Because cycling activities are not commonly considered to be noise generating, and because many of the bikeways are located on-street in areas where ambient noise conditions are defined primarily by local traffic, the emphasis of this assessment is on the impacts to the users of the bikeway system while riding in elevated noise environments.

6.3.2 REGULATORY SETTING

As noted previously, the emphasis of this analysis is on noise generated by construction activities and the effects of localized traffic noise on users of the bikeway system. As a result, the discussion of the regulatory setting focuses on those criteria which would be germane to these issues.

CONSTRUCTION NOISE

The Sacramento City and County Noise Ordinances specifically exempts construction noise from the local noise standards provided it occurs during daytime hours. These exemptions require that internal combustion engines used for construction be equipped with suitable exhaust and intake silencers, which are in good working order.

CRITERIA FOR CYCLISTS USING THE BIKEWAY SYSTEM

The Sacramento City General Plan Noise Element does not contain specific noise level standards for persons using bike trail facilities.

There is difficulty in assessing potential impacts to cyclists due to traffic noise while they utilize the bikeway system. This is because persons traveling on bikeways have an expectation that, because they are located within a transportation corridor, the noise environment they will be riding in will be elevated. The Occupational Safety and Health Administration (OSHA) defines potentially harmful noise exposure (that which may lead to hearing loss) as a constant 8-hour exposure to a noise level of 85 dB. An 8-hour exposure to 90 dB is considered a 100% dose according to OSHA.

In order to compute the noise exposure of the cyclist while utilizing the system, the specific noise generation of each Bikeway segment the cyclist utilizes as well as the duration of time the cyclist would be on each segment must be known.

Consider the following worst case example: Given an assumption that a cyclist is traveling 15 mph along 15 miles of very noisy roadways. The cyclist exposure duration would be one hour. Further

assuming that the average noise level along these roadways was 80 dB Leq, the cyclist would be exposed to 80 decibels for a one hour period. Because this would not exceed the OSHA harmful noise criteria, this worst case example of 1 hour at 80 dB would not be considered harmful.

6.3.3 ENVIRONMENTAL SETTING

ACOUSTICAL TERMINOLOGY

Noise is often described as unwanted sound. Sound is defined as any pressure variation in air that the human ear can detect. If the pressure variations occur frequently enough, they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second, called Hertz (Hz).

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. As a result, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals of pressure), as a point of reference, defined as 0 dB. Other sound pressures are then compared to the reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by the A-weighing network. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives noise. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels. **Table 6.3-1** contains definitions of acoustical terminology used in this section.

Community noise is commonly described in terms of the "ambient" noise level, which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (Leq), which corresponds to a steady-state A-weighted sound level containing the same total energy as a time-varying signal over a given time period (usually one hour). The Leq is the foundation of the composite noise descriptor, Ldn, and shows very good correlation with community response to noise.

The Day-night Average Level (Ldn) is based upon the average noise level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because Ldn represents a 24-hour average, it tends to disguise short-term variations in the noise environment.

EXISTING LAND USES IN THE PROJECT VICINITY

The Airport/Meadowview area is made up largely of single-family residential development with commercial development along Florin Road, Freeport Boulevard and other major thoroughfares. The community is comprised of six main neighborhoods: Freeport Manor, Airport, Meadowview, Golf Course Terrace, Woodbine, and Brentwood.

North Natomas is the new growth area of the City of Sacramento. Existing development in North Natomas includes the Natomas Marketplace regional shopping center, Arco Arena, Sacramento Coca-Cola Bottling Company warehouse and bottling facility, Raley's Distribution Center, Fry's Electronics, and a 108,000 square foot office building along Del Paso Road. A variety of residential uses are located in the area. Witter Ranch Historic Farm, Fisherman's Lake, Ueda Parkway, Town & Center and a future 200 acre Regional Park are the highlights of the community.

The South Natomas Community Plan area covers the portion of the City of Sacramento just north of the Central City. The South Natomas Community Plan area is bounded by the Steelhead Creek to the east, the American River and Sacramento River to the south, and Interstate-80 to the west.

The South Sacramento community includes a mix of housing types, including: single and multiple family developments, independent and assisted senior housing developments. Large commercial shopping developments including Florin Mall and Southgate Center are located in the northern portion of the area. In addition, two hospitals, several medical facilities, and the Cosumnes River Community College serve the community.

Due to the very large geographic area in which the Bikeway Master Plan system is located, the bikeway system passes virtually every type of existing land use in the Sacramento area. Trails within the Bikeway Master Plan area traverse residential, commercial, transit, industrial, open space, public facility, and office/professional type land uses, and parkways, amongst others. The areas which are the focus of the Bikeway Master Plan amendments consist of Airport/Meadowview, College Greens, East City/McKinley Park, North Natomas, South Natomas, South Sacramento, and Tahoe Park.

TABLE 6.3-1
ACOUSTICAL TERMINOLOGY

Term	Definition
Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
Attenuation	The reduction of noise.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.

Decibel or dB	Fundamental unit of sound, A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.
CNEL	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours weighted by a factor of 10 prior to averaging.
Frequency	The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz.
Ldn	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
Leq	Equivalent or energy-averaged sound level.
L_{50}	The A-weighted noise levels that are exceeded 50% of the time during the measurement period.
Lmax	The highest root-mean-square (RMS) sound level measured over a given period of time.
Loudness	A subjective term for the sensation of the magnitude of sound.
Masking	The amount (or the process) by which the threshold of audibility is for one sound is raised by the presence of another (masking) sound.
Noise	Unwanted sound.
Threshold of Hearing	The lowest sound that can be perceived by the human auditory system, generally considered to be 0 dB for persons with perfect hearing.
Threshold of Pain	Approximately 120 dB above the threshold of hearing.

SOURCE: Bollard & Brennan, Inc., 2002

EXISTING TRAFFIC NOISE ENVIRONMENT

The ambient noise environment along the various trails within the bikeway system varies considerably. Persons using the bikeway system will be exposed to a variety of localized noise sources as they cycle. For example, a cyclist utilizing the bikeway may be exposed to brief periods of elevated noise from impact wrenches as they pass a tire store, back-up beepers while passing a construction site, small aircraft overflights in the Airport/Meadowview area, and/or lawn-mower noise in any number of residential areas, to name a few. The periods of exposure are normally brief, and because these types of community noise are so commonplace, the cyclist may or may not notice these everyday sources of noise during their ride.

While the cyclist will undoubtedly be exposed to a variety of noise sources which will be transient to the rider as they pass the types of localized noise sources described above, many of the trails within the bikeway system are located either on-street, or off-street yet close to significant transportation

corridors. As a result, the most predominate noise source a rider can expect to encounter while using the bikeway system is noise generated by surface traffic.

Traffic noise generation is dependent on many variables, including but not limited to, volume of traffic, percentages of trucks, vehicle speeds, proximity of the receiver to the traffic, pavement type and condition, roadway grade, vehicle acceleration and deceleration, and, weather and vehicle condition. Because these variables are not consistent on the roadways adjacent to the bikeway system, traffic noise levels are also inconsistent.

Bollard & Brennan, Inc. has conducted noise level measurements along various major roadways in project area in recent years. Those measurements indicate that, adjacent to the major highways (I-5, Highways 50 and 99), existing traffic noise levels commonly exceed 70 dB Ldn at the roadway right of ways. Table 1 shows examples noise level data collected near these major highways normalized to a distance of 100 feet from the roadway centerlines. These data are provided to generally illustrate that high noise environments exist along the major roadways in the project area.

TABLE 6.3-2
TRAFFIC NOISE LEVEL MEASUREMENT RESULTS NEAR MAJOR HIGHWAYS

Roadway	Measured Noise Level (dB)
Interstate 5	73-80
Highway 50	72
Highway 99	74-76

Notes:
Noise level data collected by Bollard & Brennan, Inc in recent years.
Reported noise levels are normalized to a distance of 100 feet from the roadway centerlines.
Source: Bollard & Brennan, Inc., 2003

ESTIMATED FUTURE TRAFFIC NOISE ENVIRONMENT ALONG BIKEWAY SYSTEM

To predict noise levels due to traffic, the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108) is used. The model is based upon the Calveno reference noise factors for automobiles, medium trucks and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA model was developed to predict hourly Leq values for free-flowing traffic conditions

Table 6.3-2 shows the traffic noise levels in terms of the Peak Hour Average hourly (Leq) and Day/Night Average Level and Leq at a standardized distance of 50 feet from the centerlines of local roadways and 150 feet from the centerlines of highways for a range of traffic conditions, as well as distances to meaningful traffic noise contours. The significance of the distances to the 75 and 90 dB traffic noise contours is described in the Regulatory Setting portion of this section.

The Table 6.3-2 data is provided to illustrate the general range of noise levels a cyclist could expect to be exposed to while cycling along various roadways. The 50 foot distance is most applicable to

TABLE 6.3-3
TRAFFIC NOISE GENERATION FOR VARIOUS FUTURE TRAFFIC CONDITIONS2010 SACRAMENTO CITY BIKEWAY SYSTEM MASTER PLAN NOISE ANALYSIS

Roadway Type	Daily Traffic Volume(s)	Truck Usage	Avg. Speed	Leq at Reference Distance	Distance to Contours In feet	
					75dB Leq	90 dB Leq
Major Highway (I-5, I-80, Capital City FWY, SR-99, SR-50)	100,000 - 200,000	10-15 %	65	77-80	166-308	17-31
Minor Highway (SR-16)	50,000 - 100,000	10%	50	70-73	74-117	7-12
Major Roadway	50,000 - 100,000	5%	40	74-77	43-68	4-7
Medium Roadway	25,000 - 50,000	5%	40	71-74	27-43	3-4
Minor Roadway	10,000 - 25,000	3%	35	65-69	10-19	1-2
Neighborhood Street	5,000 or less	2%	30	< 60	5	1

Notes:
1. Traffic conditions are generalized estimates for the types of roadways shown based on inputs to the SACOG MTP.
2. Generalized distances to noise contours are measured in feet from roadway centerline.
3. Traffic modeling was performed using FHWA-RD-77-108.

SOURCE: Bollard & Brennen, 2003

major, medium, and minor roadways, as cyclists would not be in that close proximity to the centerline of major or minor highways.

6.3.4 IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

The CEQA guidelines which are applicable to this project state that implementation of the project would result in significant noise impacts if the project would result in the following:

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.

As stated previously, the local General Plan does not address noise standards for transportation corridors. As a result, this analysis considers the exposure of cyclists to exterior noise levels in excess of 90 dB over an 8-hour period.

METHOD OF ANALYSIS

Traffic Noise

Noise impacts are identified for Proposed Bikeway Master Plan Amendments segments where estimated future traffic noise levels are predicted to exceed 90 dB Leq at 150 feet from major highways or 50 feet from local roadways.

Construction Noise

During the construction phases of the project, noise from construction activities would add to the noise environment in the immediate project vicinity. Activities involved in construction would generate maximum noise levels ranging from 85 to 90 dB at a distance of 50 feet. Construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours. Provided such activities are limited to daytime hours, they are exempt from local noise standards.

IMPACTS AND MITIGATION MEASURES

Impact **6.3-1 Elevated Traffic Noise Levels along Bikeway System**

PP, AB According to the general traffic noise estimates provided in **Table 6.3-2**, traffic noise levels would not exceed the 90 dB level considered to be harmful to hearing at any existing or proposed bikeway system routes. Therefore, this impact is considered less than significant.

AA The No Project Alternative does not include specific Bikeway Master Plan Amendments. Therefore, there would be no elevated traffic noise levels along the bikeway system. **No impact would occur.**

Mitigation **6.3-1 Elevated Traffic Noise Levels along Bikeway System**

None Required.

Impact **6.3-2 Construction Noise**

PP, AB Activities associated with construction at the project site will result in elevated noise levels in the immediate area. Activities involved in construction would typically generate maximum noise levels ranging from 85 to 90 dB at a distance of 50 feet. Construction activities would be temporary in nature and would likely occur during normal daytime working hours. If construction activities occur outside the hours of Monday through Saturday from 7 am to 6 pm, and on Sunday from 9 am to 6 pm., this would be considered a **significant impact.**

AA The No Project Alternative does not include specific Bikeway Master Plan Amendments. Therefore, there would be no elevated construction noise levels. **No impact would occur.**

Mitigation **6.3-2 Construction Noise**

PP, AB Construction activities should adhere to the requirements of the City and County of Sacramento policies with respect to hours of operation, muffling of internal combustion engines, and other factors which affect construction noise generation and its effects on noise-sensitive land uses.

AA No mitigation is required.

Significance after Mitigation

Less than significant

6.4 BIOLOGICAL RESOURCES

6.4.1 INTRODUCTION

This section describes the biological resources that exist in the Proposed Project areas and identifies potential impacts to biological resources that may result from its implementation. Though the adoption of the Proposed Project would not result in direct impacts to biological resources, the construction of proposed the bikeways could result in direct and indirect impacts to these resources.

This assessment of biological resources involved gathering and reviewing existing biological resource information within the Proposed Project areas, reconnaissance level field assessments of these areas, and informal consultation with the United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Game (CDFG).

Existing sources of information reviewed for the Proposed Project areas include records in the PC application (RareFind 2) of the California Natural Diversity Database (CNDDB), a list of potentially occurring special-status species for the Project areas obtained from USFWS, the Natomas Basin Habitat Conservation Plan (NBHCP), and the Draft Environmental Impact Report for the 2010 Sacramento City/County Bikeway Master Plan (Michael Brandman Associates, 1992).

A reconnaissance level field assessment of the Proposed Project areas was conducted by AES biologists on June 26 and 27, 2003. Because the proposed bikeways within existing roadway rights-of-way (on-street bikeways) are not expected to result in biological effects, only those areas identified as proposed off-street bikeways were considered during the field assessment. Prior to conducting field assessments United States Geological Survey (USGS) topographic quadrangles and aerial photographs of the Project areas were reviewed to identify areas of potential concern. These areas were viewed in the field by either walking the length of proposed alignments or by viewing these areas from appropriate vantage points such that they could be characterized by their dominant vegetation and their potential to support sensitive wildlife.

Informal consultation with USFWS and CDFG involved submitting a written request for species likely to occur in the project areas and obtaining observation data from Rare Find2, respectively.

6.4.2 REGULATORY SETTING

The project areas and natural resources contained within are subject to various federal and state regulations. The following discussion outlines the applicable regulations.

SPECIAL-STATUS SPECIES

USFWS implements the Migratory Bird Treaty Act of 1918 (16 USC § 703-711), the Bald and Golden Eagle Protection Act of 1940 (16 USC § 668), and the federal Endangered Species Act of 1973 (16 USC § 1531 *et seq.*, and 50 CFR §17.11, 17.12). Migratory bird species, and their nests and eggs, that are on the federal list (50 CFR §10.13) are protected from injury or death, and project-related disturbances must be reduced or eliminated during the nesting cycle. Threatened and

endangered species on the federal list (50 CFR §17.11, 17.12) are protected from "take" (direct or indirect harm), unless an Incidental Take Permit based on a Habitat Conservation Plan under Section 10 of FESA is granted.

CDFG implements state regulations pertaining to fish and wildlife and their habitat. California Endangered Species Act of 1970 ("CESA," CFG Code § 2050 *et seq*., and CCR Title 14, §670.2, 670.51) prohibits the take (interpreted to mean the direct killing of a species) of species listed under CESA (14 CCR §670.2, 670.5. A CESA permit must be obtained if a project will result in take of listed species, either during construction or over the life of the project. California Fish and Game Code §3503, 3503.5, and 3800, prohibits the possession, incidental take, or needless destruction of birds, their nests, and eggs. California Fish and Game Code §3511 lists birds that are "fully protected" that may not be taken or possessed except under specific permit. California Native Plant Protection Act of 1977 (CFG Code § 1900 *et seq*.), requires CDFG to establish criteria for determining if a species or variety of native plant is endangered or rare. Section 19131 of the code requires that landowners notify CDFG at least 10 days prior to initiating activities that will destroy a listed plant to allow the salvage of plant material.

California Environmental Quality Act (CEQA) of 1970 (§§21000-21178) requires that CDFG be consulted during the CEQA review process regarding impacts of Proposed Projects on rare or endangered species. These "special-status" species are defined under CEQA Guidelines subsection 15380(b) and (d) as those listed under FESA, CESA, and species that are not currently protected by statute or regulation, but would be considered rare, threatened, or endangered under this criteria, or by the scientific community. Therefore, species that are considered rare or endangered are addressed in this study regardless of whether they are afforded protection through any other statute or regulation. The California Native Plant Society (CNPS) inventories the native flora of California and ranks species according to rarity (CNPS 2001, 2003) – plants on List 1a, 1b, and 2 are considered special-status species.

NATOMAS BASIN HABITAT CONSERVATION PLAN

The Natomas Basin Habitat Conservation Plan (NBHCP) is a conservation plan, which was developed to meet the requirements of the Endangered Species Act, designed to support applications for federal permits under Section 10(a)(1)(B) of the Endangered Species Act. The NBHCP is also intended to meet the requirements of California law pursuant to Section 2081(b) of the California Fish and Game Code. The purpose of the NBHCP is to promote biological conservation in conjunction with economic and urban development within the Natomas Basin. The NBHCP establishes a multi-species conservation program to minimize and mitigate the expected loss of habitat values and incidental take of several special-status species that could result from urban development, operation and maintenance of irrigation and drainage systems, and certain activities associated with habitat management efforts themselves (City of Sacramento et al., 2002).

The NBHCP details comprehensive strategies to protect wildlife, including the preservation and restoration of habitat in the Natomas Basin. As part of the conservation plan, the USFWS has granted permits to the City of Sacramento, Sutter County and the Natomas Basin Conservancy for

the "incidental take" of 22 threatened, endangered, or special-status species resulting from development, farm activities, and habitat restoration and management in the Natomas Basin. The USFWS approved the NBHCP on June 30, 2003.

The NBHCP requires that the Permittees (which includes the City of Sacramento) to conduct various activities and apply various operational guidelines to avoid, minimize, and mitigate the take of those 22 species covered by the plan.

WETLANDS AND WATERS OF THE U.S.

If a Proposed Project will result in the alteration or degradation of a "Waters of the State of California," and thus aquatic habitat, California Department of Fish and Game requires notification prior to commencement, and may require a Lake or Streambed Alteration Agreement (CDFG Code § 1601-1603, 5650F). Any project that involves working in navigable waters of the United States, including the discharge of dredged or fill material, must first obtain authorization from the USACE, under Section 404 of the Clean Water Act. State Water Quality Certification (Clean Water Act Section 401 permit) may be required by the Regional Water Quality Control Board before other permits are issued, and may involve implementation of a storm water pollution prevention plan.

CITY OF SACRAMENTO CODES AND ORDINANCES

City Street Trees

Intent and Purpose

Street trees within the City of Sacramento are protected under Sacramento City Codes Chapter 12.56.

Definition

A "City street tree" is defined as any tree growing on a public street right-of-way. City street trees are maintained by the city.

Protection of City Street Trees

The City of Sacramento tree ordinance provides for the protection of City Street Trees as follows:

- No person shall remove, trim, prune, cut or otherwise perform any maintenance on any City street tree without first obtaining a permit from the Director of the Parks and Recreation Department.
- No person shall interfere or cause any person to interfere with any tree related work being done pursuant to this article by any employee of the City of Sacramento or any person or firm doing work for the City.
- No person shall injure or destroy any City street tree by any means, including but not limited to the following:

- Constructing a concrete, asphalt, brick, or gravel sidewalk, or otherwise filling up the ground area around any tree so as to shut off air, light, or water from its roots, unless ordered or authorized to do so by the City.

- Piling building material, equipment, or other substance around any tree so as to injure the tree.

- Pouring any deleterious matter on or around any tree or on the surrounding ground, lawn, or sidewalk.

- Posting any sign, poster, notice, or similar device on any tree, tree stake or guard, or by fastening any guy wire, cable, rope nails, screws, or other device to any tree, tree stake or guard for any purpose other than supporting the tree.

- Causing any fire or burning near or around any tree.

- Cutting roots with a diameter of two inches (2") or greater for sidewalk repair or any other purpose; provided, however, that roots with a diameter of two inches or greater may be cut if authorized in advance by the Director of the Parks and Recreation Department.

- The Director of Public Works and the Planning Director shall notify the Director of Parks and Recreation Department of any applications for new subdivisions, curb, gutter, sidewalk, street light or driveway installation, or other proposed improvements which might require the removal of or cause injury to, any City street tree, or interfere with the fulfillment of the maintenance easement private street tree plantings.

Heritage Trees

Intent and Purpose

The intent and purpose of the heritage tree ordinance is to provide for the protection of "significant specimen trees" within the City. The protection of heritage trees will "promote scenic beauty, enhance property values, reduce soil erosion, improve air quality, abate noise and provide shade to reduce energy consumption" (Sacramento City Code Section 12.64.010).

Definition

Significant specimen trees are protected under Sacramento City Codes Chapter 12.64 as "Heritage Trees." Heritage Trees are defined by the code as:

- Any tree of any species with a trunk circumference of 100 inches or more, which is of good quality in terms of health, vigor of growth, and conformity to generally accepted horticultural standards of shape and location for its species.

- Any native *Quercus* species, *Aesculus californica*, or *Platanus racemosa* having a circumference of 36 inches or greater when a single trunk, or a cumulative circumference of 36 inches or greater when a multi-trunk.

- Any tree 36 inches or greater in circumference in a riparian zone. The riparian zone is measured from the centerline of the water course to 30 feet beyond the high water mark.

- Any tree, grove of trees, or woodland trees designated by resolution of the City Council to be of special historical or environmental value, or of significant community benefit.

Protection of Heritage Trees

The City of Sacramento tree ordinance states that none of the following activities shall be performed unless a permit is first applied for by the property owner or person authorized by the property owner and granted by the Director of the Parks and Recreation Department, subject to appeal provisions.

- The removal of any heritage tree.

- Pruning of any heritage tree segment greater than twelve inches in circumference or the placement of any chemical or other deleterious substance by spray or otherwise on any heritage tree.

- Disturbing the soil or placing any chemical or other deleterious substance or material on the soil within the drip line area of any heritage tree.

North Laguna Creek Wildlife Area

Intent and Purpose

The North Laguna Creek Wildlife Area was withdrawn from the personal access and use of members of the public for the protection of wildlife resources (Sacramento City Code Section 9.16.150).

Definition

The North Laguna Creek Wildlife Area is the area that is bound by Sheldon Road to the south, Jacinto Road to the north, Bruceville road to the east and Franklin Boulevard to the west, which enclosed by a post and cable network or fence.

Protection of North Laguna Creek Wildlife Area

Except as provided below, it is unlawful and a misdemeanor for any member of the public to stand, loiter, or stay within the North Laguna Creek Wildlife Area, and anyone found therein is deemed to be a trespasser and shall be punished pursuant to the provisions of the California Penal Code. Any access or activity in the Wildlife Area by authorized individuals shall be consistent with the terms and conditions of the permit received by the city from the USACE pursuant to Section 404 of the Clean Water Act.

An Initial Study and Mitigated Negative Declaration dated January 21, 2003, was prepared by the City to address potential impacts of the development of the proposed bike trail to the North Fork of the Laguna Creek, which is an area bounded by Center Parkway, and Bruceville Road. (City of Sacramento, 2003a). The City adopted the project via a Notice of Determination dated February 27, 2003 (City of Sacramento, 2003b). Habitats identified in the Initial Study/Mitigated Negative Declaration include the riparian area of the creek and created vernal pools. The vernal pools were

created as mitigation for previously permitted loses in habitat. Observations of these areas in December 2002 indicated that these features are currently functioning as a seasonal wetland. The Initial Study/Mitigated Negative Declaration puts forth mitigation measures that will ensure the protection of sensitive biological resources during the development and use of the bike trail in this area.

6.4.3 ENVIRONMENTAL SETTING

The Proposed Project areas are located throughout the City of Sacramento and occur in both developed and undeveloped areas of the city. The proposed on-street bikeways would occur either in association with existing city streets or streets planned for future development. The proposed off-street bikeways would occur in association with existing canal banks and levees, city and county parks, and other off- street areas.

Characteristic terrestrial vegetation communities occurring within the project region include annual grassland, oak savannah, oak woodland, remnant riparian woodland, ruderal grassland, agricultural crops, and urban ornamental landscaping. Aquatic habitats in the region include the Sacramento and American Rivers, irrigation and drainage canals, ephemeral and intermittent drainages, seasonal wetlands, freshwater marsh, and manmade ponds and reservoirs. The climate of the area is characterized by hot, dry summers and cool, moist winters; average precipitation is approximately 14 to 18 inches per year (U.S. Department of Agriculture, 1993).

SPECIAL-STATUS SPECIES

A list of regionally occurring special-status plant and animal species was compiled based on a review of pertinent literature, reconnaissance-level site assessments, informal consultation with USFWS through their Internet site (URL = http://sacramento.fws.gov/spp_list.htm) and via a letter requesting information (Appendix E), and the results of a California Natural Diversity Data Base (CNDDB) query (California Department of Fish and Game, 2003) of all reported occurrences of special-status species within the various USGS 7.5 minute topographic quadrangle that encompass the project area (Appendix F). Habitat requirements for each special-status species were assessed and compared to the habitats occurring within project areas (Appendix G).

During the site visits on June 26 and 27, 2003, no special-status species were observed within the project area, however no general or directed surveys were conducted as part of this assessment. The CNNDB reported special-status species occurrences within the vicinity of the project areas. Actual locations of special-status species occurrences relative to the proposed bikeway alignments were not determined for the level of this assessment.

Based upon the review of regionally occurring special-status species and the results of the habitat assessments, the project areas and/or surrounding vicinity represent potential habitat for six special-status plant species and 30 special-status animal species. The name, regulatory status, habitat requirements, and period of identification for these species are identified in **Table 6.4-1**.

TABLE 6.4-1
SPECIAL-STATUS SPECIES POTENTIALLY OCCURRING IN PROJECT AREAS

Scientific Name Common name	Regulatory Status USFWS/ CDFG/CNPS	General Habitat Description	Ideal Period of Identification
Plants			
Downingia pusilla Dwarf downingia	--/--/2	Vernal lake and pool margins in valley and foothill grasslands. Known to occur in the following Holland plant community types; vernal pools and valley and foothill grassland.	March-May
Gratiola heterosepala Boggs lake hedge-hyssop	FSC/CE/1B	Clay soils within freshwater marshes and vernal pools. Known to occur in the following Holland plant community types; marshes and swamps and vernal pools.	April-August
Hibiscus lasiocarpus Rose-mallow	--/--/2	Moist riverbanks and peat islands in sloughs, freshwater marsh. Known to occur in the following Holland plant community types; marshes and swamps.	June-September
Juglans hindsii Northern California black walnut	FSC/--/1B	Deep alluvial soils near streams or creeks within riparian forest and woodland. Known to occur in the following Holland plant community types; riparian forest and riparian woodland.	All year
Legenere limosa Legenere	FSC/--/1B	Found in vernal pool beds. Known to occur in the following Holland plant community types; vernal pools.	April-June
Sagittaria sanfordii Sanford's arrowhead	FSC/--/1B	In standing or slow-moving freshwater ponds, marshes, and ditches. Known to occur in the following Holland plant community types marshes and swamps.	May-October
ANIMALS			
Invertebrates			
Branchinecta lynchi Vernal pool fairy shrimp	FT/--/--	Vernal pools in the Central Valley, coast ranges, and a limited number of sites in the Transverse Ranges and Riverside County, California.	December-May (dependent on timing of winter and spring rains)

TABLE 6.4-1
SPECIAL-STATUS SPECIES POTENTIALLY OCCURRING IN PROJECT AREAS

Scientific Name Common name	Regulatory Status USFWS/ CDFG/CNPS	General Habitat Description	Ideal Period of Identification
Branchinecta mesovallensis Midvalley fairy shrimp	FSC/--/--	Lifecycle restricted to vernal pools in the Central Valley.	December-May (dependent on timing of winter and spring rains)
Desmocerus californicus dimorphus Valley elderberry longhorn beetle	FT/--/--	Breeds and forages exclusively on blue elderberry shrubs (*Sambucus mexicana*) below 2,500 feet in elevation. Specifically on shrubs with stem diameter of one-inch or greater.	All year
Lepidurus packardi Vernal pool tadpole shrimp	FE/--/--	Life cycle within vernal pools and valley foothill grassland swales.	December-May (dependent on timing of winter and spring rains)
Linderiella occidentalis California linderiella fairy shrimp	FSC/--/--	Life cycle within vernal pools and valley foothill grassland swales.	December-May (dependent on timing of winter and spring rains)
Fish			
Acipenser medirostris Green sturgeon	FC/CSC/--	Spawn in Sacramento River	February-July
Archoplites interruptus Sacramento perch	FSC/CSC/--	Found in warm water in sloughs, slow-moving rivers, and lakes of the Central Valley.	All year
Lampetra ayresi River lamprey	FSC/CSC/--	Lower Sacramento River, San Joaquin River, and Russian River. May also occur in coastal streams north of San Francisco Bay.	Insufficient data
Lampetra tridentata Pacific lamprey	FSC/--/--	Spawn in rivers in the Central Valley, in gravely riffles with swift currents.	July-October
Oncorhynchus mykiss Central Valley steelhead	FT/--/--	Sacramento and San Joaquin Rivers and their tributaries	December-July
Oncorhynchus tshawytscha Central Valley fall/late fall-run Chinook salmon	FC/CSC/--	Sacramento and San Joaquin Rivers and their tributaries	October-March

TABLE 6.4-1
SPECIAL-STATUS SPECIES POTENTIALLY OCCURRING IN PROJECT AREAS

Scientific Name **Common name**	**Regulatory Status USFWS/ CDFG/CNPS**	**General Habitat Description**	**Ideal Period of Identification**
Oncorhynchus tshawytscha Central Valley spring-run Chinook salmon	FT/CT/--	Sacramento and San Joaquin Rivers and their tributaries	February-June
Oncorhynchus tshawytscha Winter-run Chinook salmon	FE/CE/--	Sacramento and San Joaquin Rivers and their tributaries	December-June
Amphibians			
Ambystoma californiense California tiger salamander	FC/CSC/--	Breeds in vernal pools and ponds of grassland and open woodland of low hills and valleys. Will utilize burrows for refugia.	November-February (adults) March 15-May15 (larvae)
Spea hammondii Western spadefoot toad	FSC/CSC/--	Occurs primarily in grassland habitats, but can be found in valley and foothill woodlands. Vernal pools are essential for breeding and egg laying.	November-March
Reptiles			
Clemmys marmorata marmorata Northwestern pond turtle	FSC/CSC/--	Requires aquatic habitats with suitable basking sites. Nest sites most often characterized as having gentle slopes (<15%) with little vegetation or sandy banks.	All year
Thamnophis gigas Giant garter snake	FT/CT/--	Generally inhabits marshes, sloughs, ponds, slow-moving streams, ditches, and rice fields which have water from early spring through mid-fall, emergent vegetation (such as cattails and bulrushes), open areas for sunning, and high ground for hibernation and escape cover.	March-October
Birds			
Accipiter cooperi (when nesting) Cooper's hawk	--/CSC/--	Nests in densely-canopied trees from foothill oak woodlands up to ponderosa pine forests. Nesting usually occurs in a deciduous tree near open water or riparian vegetation.	March-September

TABLE 6.4-1
SPECIAL-STATUS SPECIES POTENTIALLY OCCURRING IN PROJECT AREAS

Scientific Name Common name	Regulatory Status USFWS/ CDFG/CNPS	General Habitat Description	Ideal Period of Identification
Agelaius tricolor Tricolored blackbird	FSC/CSC/--	Nests in dense thickets of cattails, tules, willow, blackberry, wild rose, and other tall herbs near fresh water.	April-July
*Athebe cubicularia**Burrowing owl (burrow sites) *Western burrowing owl subspecies listed as Federal species of concern	(FSC)/CSC/--	Uses elevated rodent or other burrow for roosting and nesting. Frequents open grasslands and shrublands.	Dec. 1-Jan.31 & April 15-July15
Baeolophus inornatus Oak titmouse	SLC/--/--	Open woodlands of oak or mixed pine-oak. Sometimes forages and breeds in riparian areas.	March-July
Buteo swainsoni (nesting) Swainson's hawk	FSC/CT/--	Platform nests in trees or utility poles in open riparian and grassland habitats in flatlands.	March-August
Carduelis lawrencei Lawrence's goldfinch	FSC/--/--	Nests in open oak or other arid woodland near water	March-August
Coccyzus americanus occidentalis Western yellow-billed cuckoo	FC/CE/--	Nests in densely foliaged deciduous trees and shrubs, especially willows. Typically found in dense riparian forests and woodlands.	June-September
Egretta thula (rookery)	FSC/--/--	Rookery sites near marshes, tide-flats, lakes, rivers/streams and wet meadows.	All year
Haliaeetus leucocephalus Bald eagle	FT/CE/--	Found near ocean shorelines, lakes, reservoirs, river systems, and coastal wetlands.	All year
Lanius ludovicianus (when nesting) Loggerhead shrike	FSC/CSC/--	Occurs in open-canopied valley foothill hardwood, valley foothill hardwood-conifer, valley foothill riparian, pinyon-juniper, juniper, desert riparian, and Joshua tree habitats. Found in a variety of habitats with open areas, available perches, and dense shrubs for nesting	March-August
Picoides nuttallii Nuttall's woodpecker	FSC/--/--	Deciduous riparian and oak habitats. Requires snags and dead limbs for nesting.	All year
Riparia riparia (nesting) Bank swallow	FSC/CT/--	Nests in compact colonies along rivers, large streams, and lakes, typically adjacent to open grasslands. Nest holes dug in vertical sandy cliffs.	March-August
Mammals			

TABLE 6.4-1
SPECIAL-STATUS SPECIES POTENTIALLY OCCURRING IN PROJECT AREAS

Scientific Name Common name	Regulatory Status USFWS/ CDFG/CNPS	General Habitat Description	Ideal Period of Identification
Sylvilagus bachmani riparius Riparian brush rabbit	FE/CE/--	Found in riparian communities dominated by willow thickets, California wild rose, Pacific blackberry, wild grape, Douglas' coyote bush, and various grasses.	All year

STATUS CODES

FEDERAL: U.S. Fish and Wildlife Service and National Marine Fisheries Service
FE Listed as Endangered by the Federal Government
FT Listed as Threatened by the Federal Government
FPE Proposed for Listing as Endangered
FPT Proposed for Listing as Threatened
FC Candidate for Federal Listing
FSC Federal Species of Concern
SLC Federal Species of Local Concern

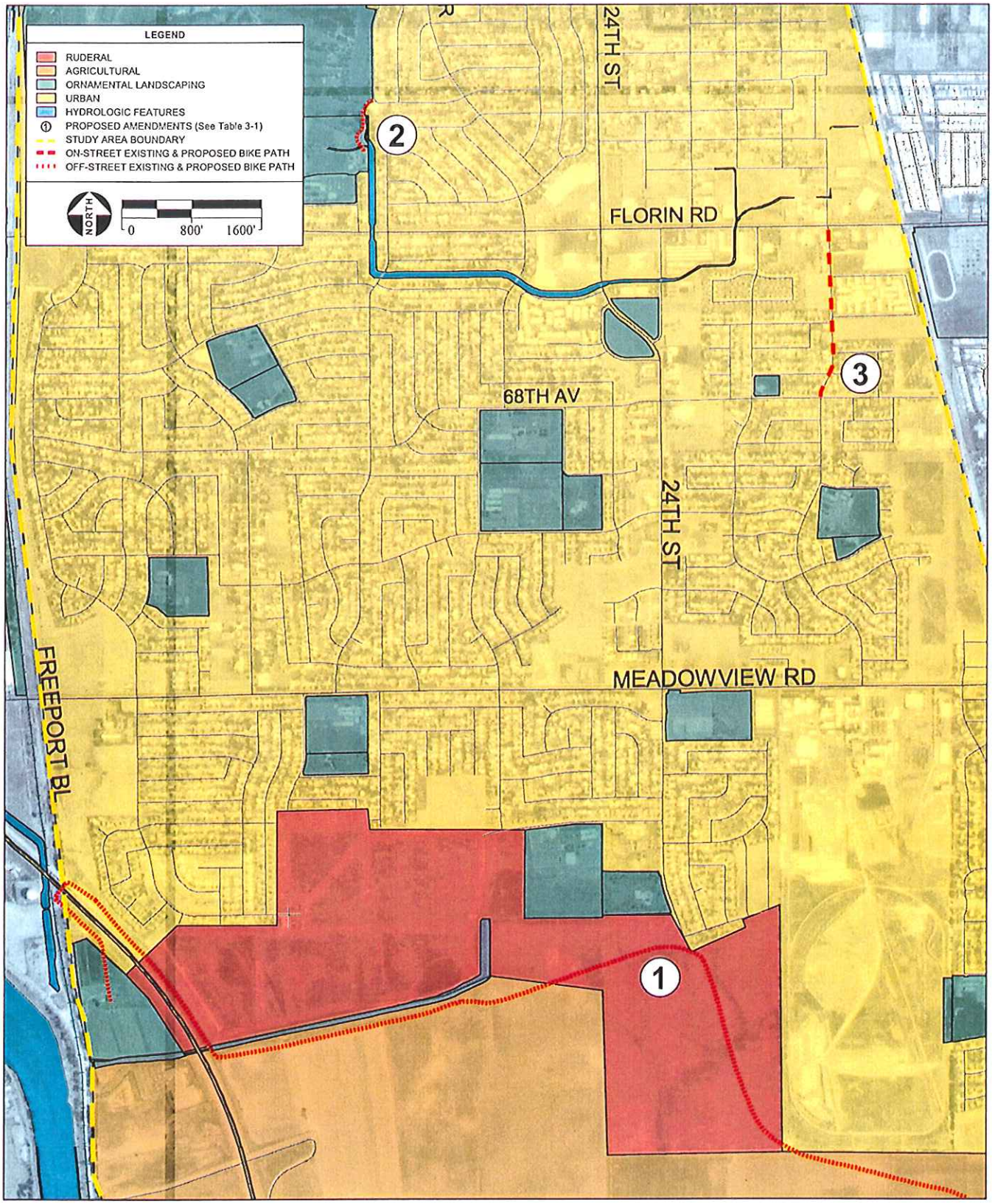
STATE: California Department of Fish and Game
CE Listed as Endangered by the State of California
CT Listed as Threatened by the State of California
CSC California Species of Special Concern
CFP California Fully Protected Species

CNPS: California Native Plant Society
List 1A Plants presumed extinct in California
List 1B Plants rare or endangered in California and elsewhere
List 2 Plants rare or endangered in California, but more common elsewhere

SOURCE: U.S. Fish and Wildlife Service, 2003; California Natural Diversity Data Base, 2003; NatureServe, 2003.

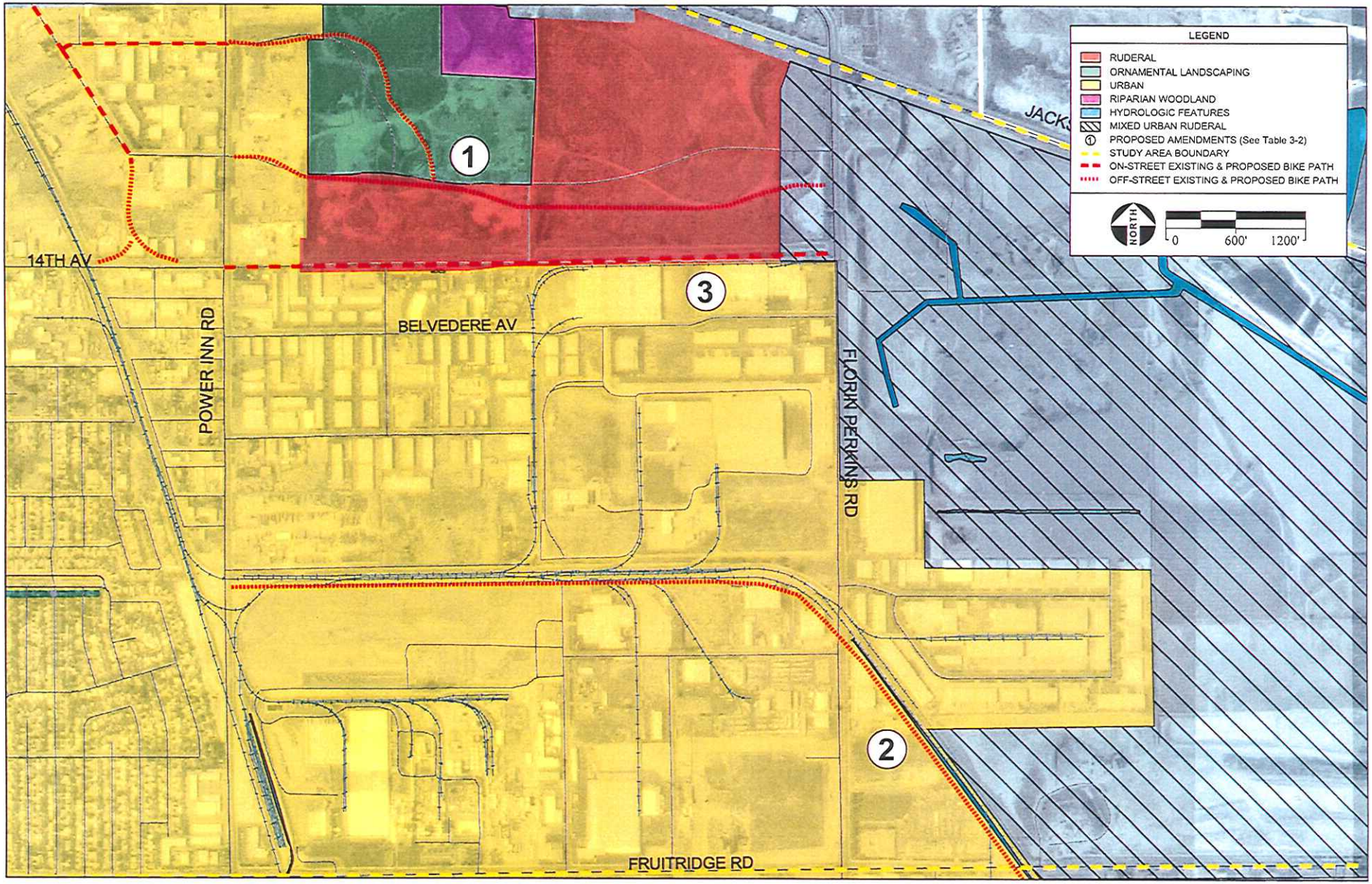
HABITAT ASSESSMENT

AES biologists conducted reconnaissance-level biological assessments of the project areas on June 26 and 27, 2003. The assessments were conducted to characterize existing habitat types, evaluate the potential for the occurrence of any special-status plant or animal species, and assess the areas for the presence or absence of isolated wetlands, jurisdictional "waters of the U.S.", and other sensitive biological resources. Habitat maps for the seven communities are presented as **Figures 6-1** through **6-7.**



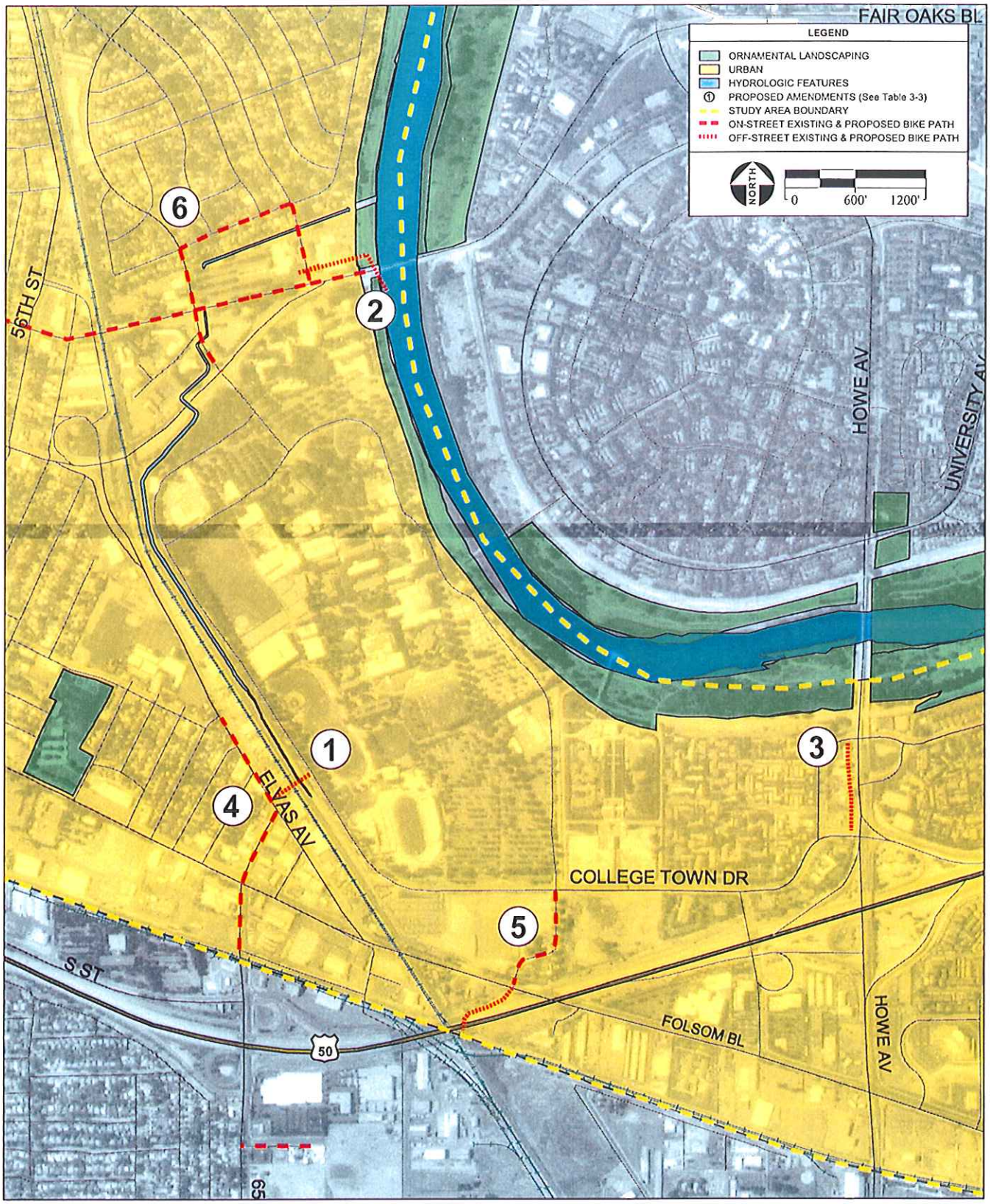
SOURCE: City of Sacramento, 2001 ; AES, 2003

Figure 6-1
Airport / Meadowview Habitat Map



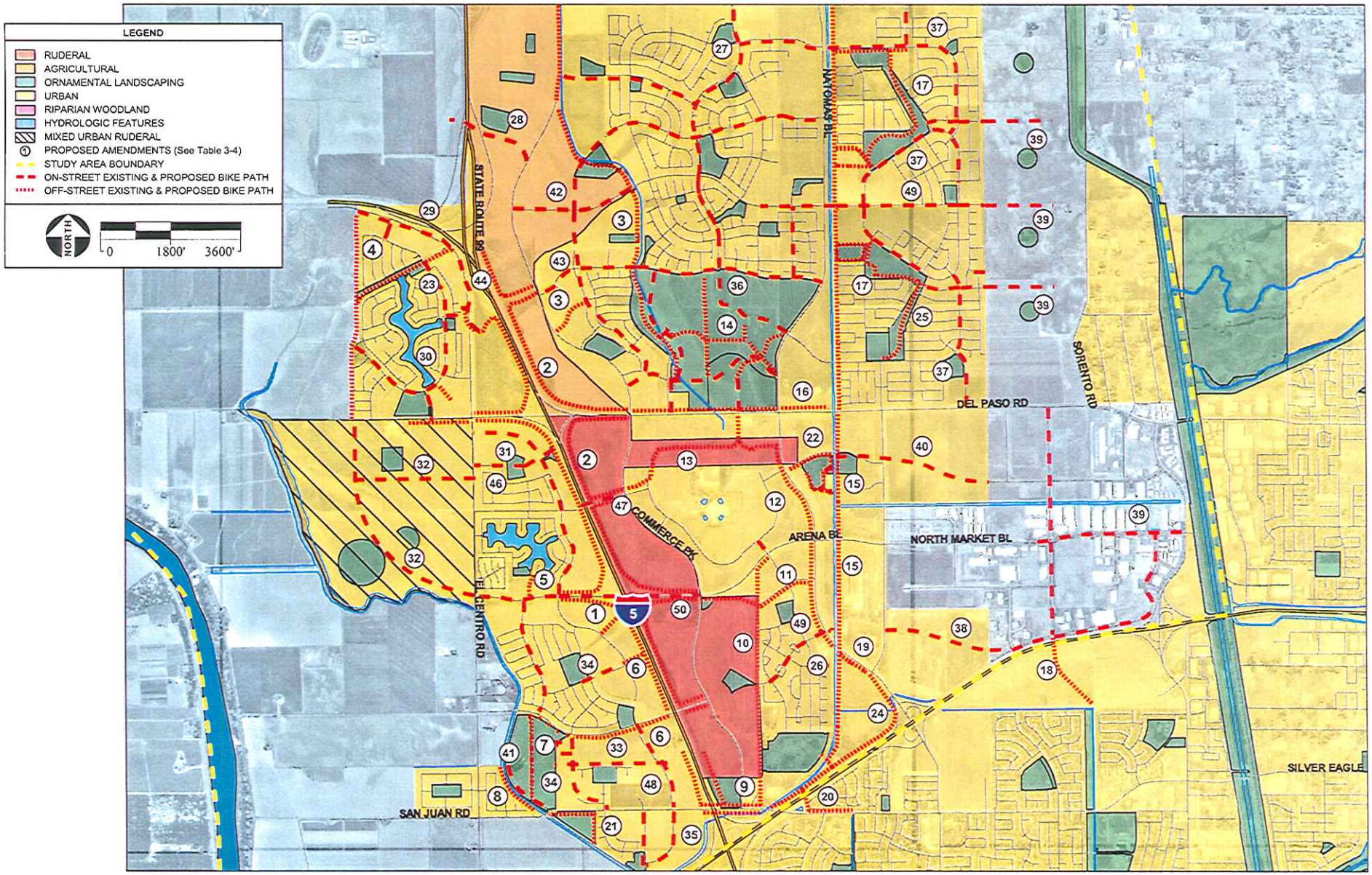
SOURCE: City of Sacramento, 2001 ; AES, 2003

Figure 6-2
College Greens Habitat Map



SOURCE: City of Sacramento, 2001 ; AES, 2003

Figure 6-3
East City / McKinley Park Habitat Map



SOURCE: City of Sacramento, 2001 ; AES, 2003

Figure 6-4
North Natomas Habitat Map

Urban

Urban areas are defined as those areas that have been permanently altered for residential, commercial, or industrial use. All of the proposed on-street alignments would pass through areas designated as urban. Throughout the City of Sacramento there are trees planted along city right-of-ways that are maintained and protected by the City. No special-status species would be expected to occur in the urban areas of the project.

Ruderal Grassland

Several of the proposed off-street alignments are in undeveloped areas within and adjacent to existing city development. The habitat in these areas can best be described as ruderal vegetation. These areas are dominated primarily by non-native grasses and forbs and are subject to frequent disturbance for weed and fire control. Typical species in these areas include wild oat (*Avena sp.*), mustard (*Brassica sp.*), brome (*Bromus sp.*), star thistle (*Centaurea sp.*), barely (*Hordium sp.*), clover (*Trifolium sp.*), and vetch (*Vicia sp.*). Ruderal areas could provide foraging habitat for White-tailed Kite and Swainson's Hawk, if within 10-miles of an active nest site. No special-status species would be expected to occur in the ruderal areas of the project.

Agricultural

Several areas in agricultural production exist within the communities. Only one of these areas was identified in the vicinity of a proposed bikeway amendment. The area south of Meadowview Park, where the proposed off-street bikeway identified as South Sacramento Parkway Bike Trail would be built, at the time of this assessment was being used for the agricultural production of hay. Agricultural areas could provide foraging habitat for White-tailed Kite and Swainson's Hawk, if within 10-miles of an active nest site. No special-status species would be expected to occur in this area.

Ornamental Landscaping

Several of the proposed off-street bikeway alignments would pass through local parks and other public corridors that are landscaped with turf grass and ornamental tress and shrubs. These parks would include: Discovery Park, Granite Regional Park, Jacinto Creek Parkway, and the North Natomas Regional Park. **Figures 6-1** through **6-7** depict these areas, which include city and regional parks and schools. No special-status species would be expected to occur in these areas.

Oak Woodland

An area characterized as oak woodland was identified in association with proposed bikeway alignment through Natomas Oaks Park in South Natomas. A portion of this area is designated as a natural oak preserve with a nature trail meandering through it. This area is dominated by large valley oaks (*Quercus lobata*) with an understory of annual grasses. This area would provide suitable habitat for several special-status species identified in Table 1. Potentially occurring special status-species would include: Cooper's hawk, oak titmouse, Swainson's hawk, Lawrence's goldfinch, and Nuttall's woodpecker.

Riparian Woodland

Three areas of riparian woodland were identified in association with the proposed off-street bikeway alignments; Discovery Park, North Laguna Creek Wildlife Area, and Granite Regional Park. Two off-street bikeway alignments are proposed for Discovery Park that would pass through dense a riparian woodland dominated by Fremont cottonwood (*Populus fremontii*), valley oak (*Quercus lobata*), box elder (*Acer negundo*), and several willow species (*Salix sp.*). **Figure 6-8, Photo 1** shows a riparian woodland area near the Truxel Road alignment in Discovery Park.

The proposed off-street bikeway alignment associated with North Laguna Creek Wildlife Area, identified as Jacinto Creek Trail, would pass through a riparian corridor along Jacinto Creek, between Bruceville Road and Center Parkway. This area is dominated by Fremont cottonwood and willows. **Figure 6-8, Photo 2** shows the riparian area along Jacinto Creek.

The proposed off-street bikeway alignment associated with Granite Regional Park (**Figure 6-8, Photo 3**) would pass through a heavily disturbed, undeveloped portion of the park that is dominated by ruderal grassland, but does possess an intermittent canopy of Fremont cottonwoods.

Discovery Park and North Laguna Creek Wildlife area both would provide suitable habitat for several special-status species identified in Table 1. Potentially occurring special status-species would include: Northern California black walnut, valley elderberry longhorn beetle, Cooper's hawk, Swainson's hawk, western yellow-billed cuckoo, snowy egret, bald eagle, loggerhead shrike, Nuttall's woodpecker, and riparian brush rabbit.

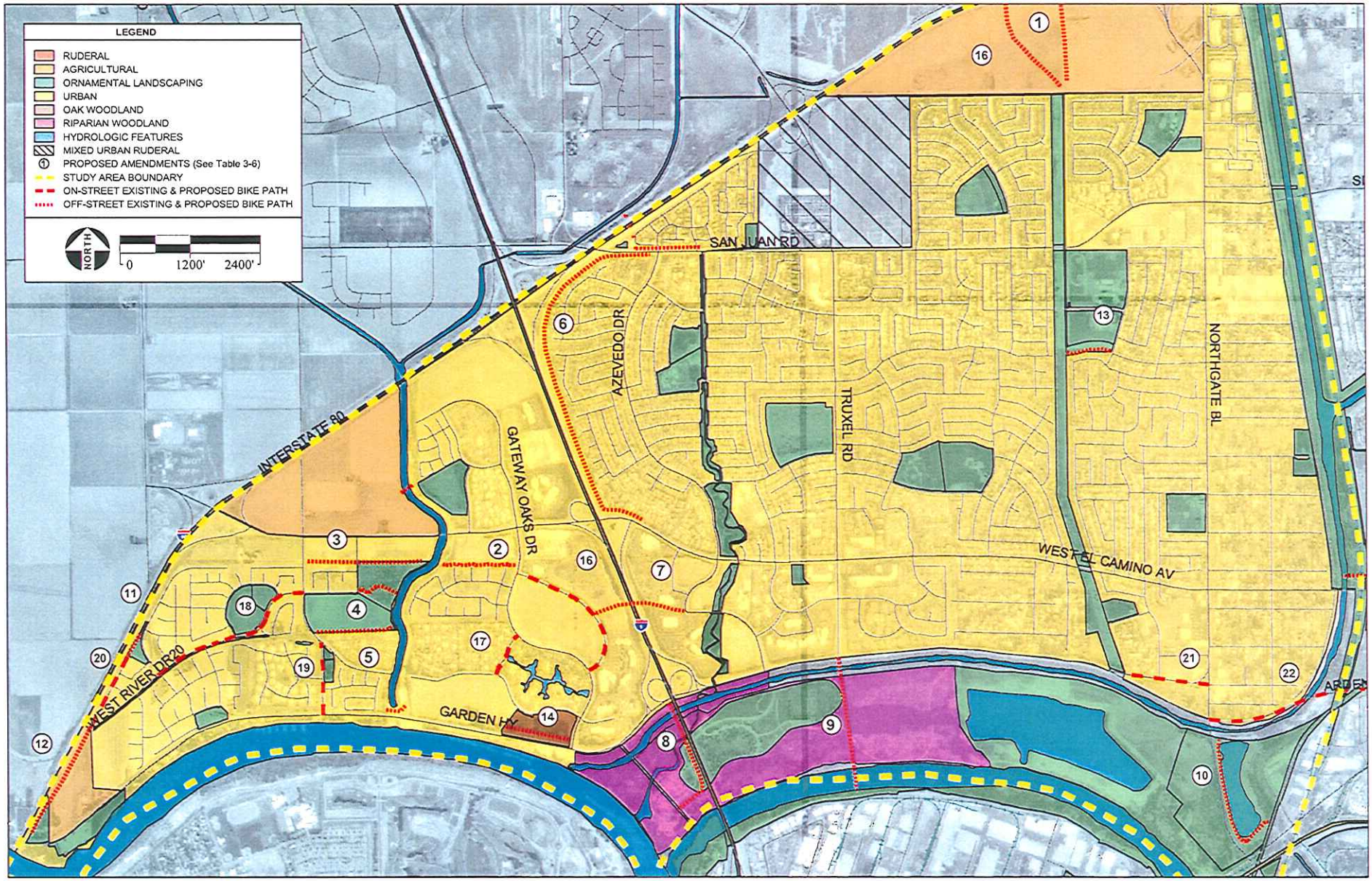
Hydrologic Features

Several proposed off-street bikeway alignments would be constructed adjacent to various hydrologic features, with a few crossing these areas via bridges. These features are mapped in **Figures 6-1** through **6-7**.

Streams and Canals

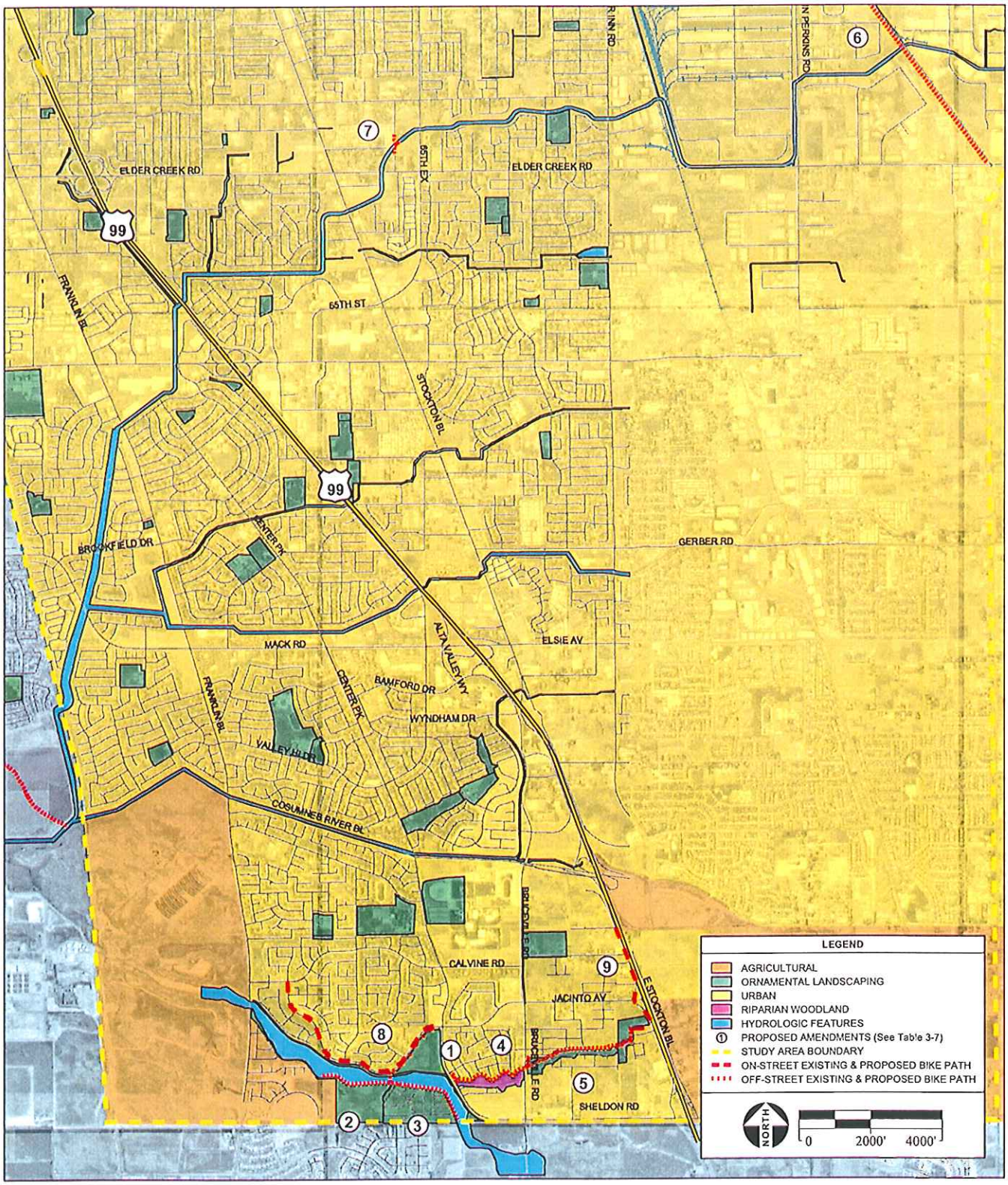
Several of the off-street bikeway alignments would be constructed on and adjacent to existing stream and canal banks. These projects would involve the paving bikeways in open areas adjacent to these streams and canals, and would not involve direct modification to these waterways. The proposed bikeway adjacent to Jacinto Creek would be the only alignment would that would occur in the vicinity of a natural stream. This bikeway would likely be constructed upland adjacent to the riparian area. The bikeways associated with canals in the Natomas and South Sacramento areas would be developed on existing canal levees that do not support wetland vegetation, and are in general existing gravel roads that have historically been used by local water district personnel. One of these bikeway alignments would require a bridge crossing of the Steelhead Creek within Discovery Park. **Figure 6-8, Photo 4** shows the gravel road along Natomas Main Drainage.

The identified stream and the several canals were observed to support emergent wetland vegetation dominated by rush (*Juncus sp.*), tule (*Scirpus sp.*), and cattails (*Typha latifolia*). These areas would



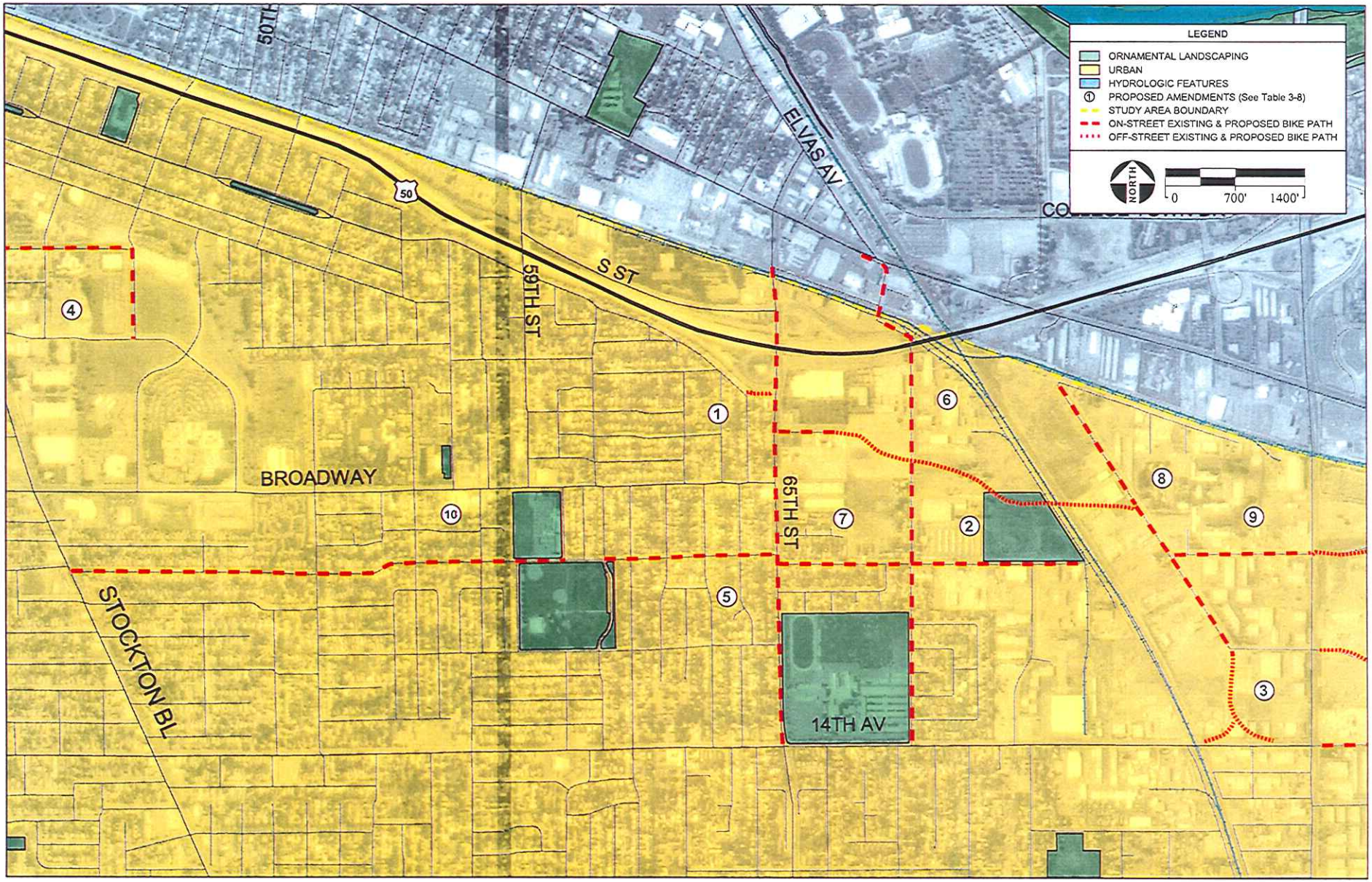
SOURCE: City of Sacramento, 2001 ; AES, 2003

Figure 6-5
South Natomas Habitat Map



SOURCE: City of Sacramento, 2001 ; AES, 2003

Figure 6-6
South Sacramento Habitat Map



SOURCE: City of Sacramento, 2001 ; AES, 2003

Figure 6-7
Tahoe Park Habitat Map

likely provide habitat for several special-status species. Potentially occurring special-status species would include: Sanford's arrowhead, Sacramento perch, northwestern pond turtle, giant garter snake, tricolored blackbird, and snowy egret. In areas where the canal banks/levees have rodent burrows, suitable habitat would also exist for burrowing owls.

American River

The proposed American River crossing at Truxel Road would involve the construction of a new bridge across the river. This new crossing would involve modifications to the banks and deep-water areas of the river. The banks of the river in this area are comprised of areas of bare, sandy concretions and shrubby riparian vegetation dominated by willows and blackberry (*Rubus sp.*).

Potentially occurring special-status species associated with this area would include: green sturgeon, river lamprey, Pacific lamprey, Central Valley steelhead, Central Valley fall/late fall-run, spring-run, and winter run Chinook salmon, northwester pond turtle, and bank swallow.

Vernal Pools

The North Laguna Creek Wildlife Area Bike Trail Initial Study/Mitigated Negative Declaration identified vernal pool habitat within the vicinity of the proposed bikeway. These features were created as mitigation for previously permitted loses of this habitat type. These features met the criteria for success under the USACE 404 Permit in 1995. Field efforts in December 2002, identified these features to be functioning as seasonal wetlands and not as vernal pools.

These features were not observed during a visit to this area. As vernal pool habitat this area represents potential habitat for dwarf downingia, Boggs lake hedge-hyssop, legenere, vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California lineriella fairy shrimp, California tiger salamander, and western spadefoot toad.

Waters of the U.S.

An assessment for the presence of jurisdictional "Waters of the U.S." and isolated wetland features within the proposed bikeway alignments was conducted concurrently with the habitat assessment. Although a formal delineation of "Waters of the U.S." was not conducted as part of this assessment, two waterways where identified within the alignments of proposed bikeways in Discovery Park (Natomas East Main Drainage and American River). These areas both would be considered jurisdictional "Waters of the U.S.," and thus would be subject to United States Army Corps of Engineers (USACE) regulation under Section 404 of the Clean Water Act. These features are identified in **Figure 6-5.** Created vernal pools have were identified in a previous study in the area of North Laguna Creek Wildlife area. These features are not within the proposed bikeway alignment and would not be directly be impacted.

6.4.4 IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

The project would be considered to have a significant adverse impact on biological resources if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFG or USFWS;

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFG or USFWS;

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

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or

- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Based upon the special-status species review, review of habitat requirements, and the habitat types present within the project areas, six special-status plant species and 30 special-status animal species have the potential to occur within the project areas. Based on the significance criteria outlined in *Section 5.1*, four special-status plant species: Boggs lake hedge-hyssop, legenere, northern California black walnut and Sanford's arrowhead; and 30 special-status animal species: valley elderberry longhorn beetle, vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California lineriella fairy shrimp, green sturgeon, Sacramento perch, river lamprey, Pacific lamprey, Central Valley steelhead, Central Valley Chinook (3 runs), California tiger salamander, western spadefoot toad, northwestern pond turtle, giant garter snake, Cooper's hawk, tricolored blackbird, burrowing owl, oak titmouse, Swainson's hawk, Lawrence's goldfinch, western yellow-billed cuckoo, snowy egret, bald eagle, loggerhead shrike, Nutall's woodpecker, bank, swallow, and riparian brush rabbit may potentially be adversely impacted by the proposed bikeways.

IMPACTS AND MITIGATION MEASURES

Impact 6.4-1 Impacts to Special-Status Species

PP The Proposed Project could potentially result in both direct and indirect potentially significant impacts to four special-status plant species and 30 special-status animal species outlined above. Direct impacts could result from the development of off-street bikeways in riparian woodlands, oak woodlands, and wetlands previously identified. The development of bikeways in these areas could potentially require vegetation clearing and the fill of wetlands for bridge crossings. Indirect impacts could include disturbance from construction related activity and from general bikeway usage in certain sensitive areas. Indirect impacts would stem from disturbance to the aforementioned species during the construction and use of the proposed bikeways. The Proposed Project could also result in impacts to nesting birds, which are protected under the Migratory Bird Treaty Act. This is considered a **potentially significant impact.**

AA The No Project Alternative does not include specific Bikeway Master Plan Amendments. Therefore, there would be no impacts to special status species. **No impact would occur.**

AB The Natural Resource Sensitive Alternative could result in indirect potentially significant impacts to nesting birds in City street trees. Construction activity during periods of nesting could lead to interference with normal behavior and/or nest abandonment. This is considered a **potentially significant impact.**

Mitigation 6.4-1 Impacts to Special-Status Species

PP All project related activity in the Natomas Basin shall comply with the conservation measures for special-status species covered by the NBHCP. All project related activity in the North Laguna Creek Wildlife Area shall comply with the mitigation measures outlined in the North Laguna Creek Wildlife Area Bike Trail Initial Study/Mitigated Negative Declaration. The following mitigation measures are recommended to reduce impacts to special status species associated with the Proposed Project to a less than significant level.

a. Prior to the implementation of the specific amendments to the Bikeway Master Plan, a biological resources assessment shall be conducted for the project specific area to determine the potential for and the presence of special-status species and nesting birds.

b. If special-status species are determined to be present within and adjacent to bikeway alignments, measures shall be taken to avoid direct and indirect impacts to these species. These measures could include, but would not be limited to the following: the redesign of bikeway alignments to avoid

sensitive areas and timing construction activity to avoid disturbance during nesting and breeding periods.

c. If special-status species are determined to present within and adjacent to bikeway alignments, measures shall be taken to minimize direct and indirect impacts to these species. These measures could include, but would not be limited to the following: the fencing off of sensitive areas during construction activity, worker awareness training, posting signs in sensitive areas educating the public on the presence of sensitive resources, and installing permanent structures to discourage off-trail riding through sensitive areas.

d. Survey protocols and mitigation measures for federally and state endangered and threatened species shall follow guidelines developed by USFWS and CDFG for individual species. Applicable protocols and mitigation measures would include, but would not limited to the following: for **listed plants** - USFW's *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants*; for **giant garter snake** - USFWS's *Guidelines for Restoration and/or Replacement of Giant Garter Snake Habitat* and *Standard Avoidance and Minimization Measures During Construction Activities in Giant Garter Snake (Thamnophis gigas) Habitat*; for **Swainson's hawk** - CDFG's *Staff Report Regarding Mitigation for Impacts to Swainson's Hawks in the Central Valley of California*; for **valley elderberry long horn beetle** - USFWS's *Conservation Guidelines for the Valley Elderberry Longhorn Beetle*; and for **vernal pool crustaceans** USFWS's *Interim Survey Guidelines to Permittes for Recovery Permits under Section 10(a)(1)(A) of the Endangered Species Act for the Lister Vernal Pool Branchiopods*.

e. If nesting birds are determined to be within or immediately adjacent to specific bikeway alignments, construction activity will be delayed until nestlings have fledged.

AA No mitigation required.

AB The following mitigation measures are recommended to reduce impacts to nesting birds associated with the Natural Resource Sensitive Alternative to a less than significant level.

a. Prior to the implementation of the specific amendments to the Bikeway Master Plan, a biological resources assessment shall be conducted for the project specific area to determine the potential for and the presence of nesting birds.

b. If nesting birds are determined to be within or immediately adjacent to specific bikeway alignments, construction activity will be delayed until nestlings have fledged.

Significance after Mitigation

Less-than-Significant

Impact **6.4-2 Impacts to Waters of the U.S.**

PP The Proposed Project could potentially result in potentially significant impacts to Waters of the U.S. These impacts would result from the three proposed bridge crossing of waters under the jurisdiction of the USACE. Indirect impacts to waters of the U.S. could result from incidental fill to waters adjacent to proposed bikeways. The construction of several proposed bikeways on existing levees could result in impacts to water quality and habitat in these features. This is considered a **potentially significant impact.**

AA No impact.

AB No anticipated impact.

Mitigation **6.4-2 Impacts to Waters of the U.S.**

PP The following mitigation measures are recommended to reduce impacts to waters of the U.S. associated with the Proposed Project to a less than significant level.

a. A formal delineation of "Waters of the U.S." occurring within Proposed Project areas should be prepared by a qualified biologist and submitted to the USACE for verification. The appropriate Department of the Army permit should be obtained from the USACE prior to the discharge of any fill material within "Waters of the U.S.". The Proposed Project should comply with any required compensatory mitigation for loss of "Waters of the U.S."

b. Water Quality Certification should be obtained from the Regional Water Quality Control Board prior to development of the Proposed Project areas.

c. Prior to any modification of intermittent drainages, formal notification of streambed alteration should be provided to the CDFG and a Streambed Alteration Agreement should be obtained, if required.

AA No mitigation required.

AB No mitigation required.

Significance after Mitigation

Less-than-Significant

Impact 6.4-3 Impacts to City Street Trees

PP, AB A "City street tree" is defined as any tree growing on a public street right-of-way. The development of on-street bikeways on existing roads could possibly require road widening, which could result in direct and indirect impacts to City street trees. These potentially significant impacts could result from construction activities such as curb removal, trenching, and material stockpiling resulting in soil compaction. Any loss of the urban tree canopy in the City would likely result in the following impacts: loss of aesthetic and biological values that trees provide, loss of shade currently shielding residences from summer heat, and loss of nesting habitat for bird species. This is considered a **potentially significant impact.**

AA The No Project Alternative does not include specific Bikeway Master Plan Amendments. Therefore, there would be no impacts to City street trees. **No impact would occur.**

Mitigation 6.4-3 Impacts to City Street Trees

PP, AB The following mitigation measures are recommended to reduce impacts associated with the Proposed Project and the Natural Resource Sensitive Alternative to a less than significant level. All Project related activity must comply with the provisions of Sacramento City Codes Chapter 12.56. The following measures should be implemented when working in the immediate vicinity of City street trees.

a. An ISA (International Society of Arboriculture) certified arborist shall perform an examination of damage to trees and roots during construction activity. An appraisal of damage will be assessed, and this damage should be mitigated by measures such as planting new trees. Damages will be assessed using the "Guide to Plant Appraisal" ninth edition published by the ISA.

b. If the project arborist determines that excavation and/or root severing has weakened the tree or surrounding soil, a safety evaluation will be

performed. If the tree is deemed to be unsafe due to possible soil failure and felling of the tree, the tree may need to be removed.

c. All roots shall be cut clean. Any roots greater than 2-inches in diameter require an inspection by an ISA certified arborist prior to severing. Any tree roots to be severed shall be the maximum feasible distance from the trunk. Any roots over one-inch in diameter that are damaged as a result of construction activities shall be traced back and cleanly cut behind any split, cracked, or damaged area.

d. Any pruning required for equipment clearance or other construction activities shall be carried out or supervised by an ISA certified arborist.

e. The contractor shall be held liable for any damage to existing trees (e.g. trunk wounds, broken limbs, pouring of any deleterious materials or washing out concrete under the drip line of the tree, etc.). The contractor will hire an ISA certified arborist to do the appraisal, submit a report for review by the City Arborist, and mitigate for damages.

f. To maintain the aeration and soil conditions under the drip line of the trees, existing unpaved areas between the existing curbs and sidewalks should not be used as areas for the temporary storage of construction related equipment and fill material.

AA No mitigation required.

Significance after Mitigation

Less-than-Significant

Impact **6.4-4 Impacts to City Heritage Trees**

PP The development of off-street bikeways in Discovery Park and Natomas Oaks Park in the community of South Natomas could result in direct and indirect impacts to City heritage trees. These impacts would result from the direct loss of heritage trees through clearing of vegetation for the two proposed bikeways in Discovery Park (South Natomas Amendment #s 8 & 9) and indirect impacts to heritage oaks in Natomas Oaks Park (Amendment # 14) through soil compaction in root zones. The loss of these trees would likely result in the following impacts: loss of aesthetic and biological values that trees provide and loss of nesting habitat for bird species, including special-status species. This is considered a **potentially significant impact.**

AA The No Project Alternative does not include specific Bikeway Master Plan Amendments. Therefore, there would be no impacts to City heritage trees. **No impact would occur.**

AB No impact anticipated

Mitigation

6.4-4 Impacts to City Heritage Trees

PP All Project related activity must comply with the provisions of Sacramento City Codes Chapter 12.64. The following mitigation is recommended to reduce significant impacts for the Proposed Project.

a. Prior to construction in areas potentially supporting Heritage Trees, an ISA certified arborist shall conduct an inventory of trees within and adjacent to the bikeway alignment. The bikeway plans and results of the inventory shall be forwarded to the City Arborist for review and comment prior to commencement of construction activities. The plans shall be forwarded to the City Arborist early enough in the design process to assure that suggested changes can be incorporated into the final design. Suggested changes could include reconfiguring alignments in relation to the driplines of heritage trees, pruning recommendations, treatment of soil within and around the dripline of heritage trees, etc.

b. Prior to any construction activity, protective fencing shall be installed around the drip lines of adjacent heritage trees. Within the fenced area there shall be no storage of materials or equipment, no parking of vehicles, and no trenching or grade changes.

c. All roots shall be cut clean. Any roots greater than 2-inches in diameter require an inspection by an ISA certified arborist prior to severing.

d. Any pruning required for building or equipment clearance shall be carried out or supervised by an ISA certified arborist.

e. The contractor shall be held liable for any damage to existing trees (e.g. trunk wounds, broken limbs, pouring of any deleterious materials or washing out concrete under the drip line of the tree). Damages will be assessed using the "Guide to Plant Appraisal" ninth edition published by the ISA. The contractor will hire an ISA certified arborist to do the appraisal and submit a report for review by the City Arborist.

f. Any heritage trees that can't be avoided must be permitted by the Director of Parks and Recreation department for removal, subject to appeal provisions.

AA No mitigation required.

AB No mitigation required.

Significance after Mitigation

Less-than significant.

6.5 TRANSPORTATION AND SAFETY

6.5.1 INTRODUCTION

The Transportation and Safety section of the EIR analyzes the potential safety and transportation effects associated with the construction and operation of the Proposed Project. The focus of the safety discussion is on cyclist safety and conflicts with traffic. The focus of the transportation discussion includes barriers to continuous bikeway routes, and consistency with local and regional transportation plans.

6.5.2 REGULATORY SETTING

BICYCLE LAWS

The California Vehicle Code stipulates rights and duties associated with the operation of bicycles on public streets within California. As stated within VC21200 - "Every person riding a bicycle on a street or highway has all the rights and is subject to all duties applicable to the driver of a vehicle." With the exception of freeways with signed restricted access, bicycles have the right to travel on any roadway within the State of California and, thus, also any roadway within the City of Sacramento.

The 2003 California Vehicle Code designates where a bicycle may travel relative to vehicular traffic for general conditions along roadways which do not have designated bike lanes, as follows:

> (VC 21202) – Any person operating a bicycle upon a roadway at a speed less than the normal speed of traffic moving in the same direction at that time shall ride as close as practicable to the right-hand curb or edge of the roadway except under any of the following situations:
>
> 1. When overtaking and passing another bicycle or vehicle proceeding in the same direction.
>
> 2. When preparing for a left turn at an intersection or into a private road or driveway.
>
> 3. When reasonably necessary to avoid conditions (including, but not limited to, fixed or moving objects, vehicles, bicycles, pedestrians, animals, surface hazards, or substandard width lanes) that make it unsafe to continue along the right-hand curb or edge, subject to the provisions of Section 21656. For purposes of this section, a "substandard width lane" is a lane that is too narrow for a bicycle and a vehicle to travel safely side by side within the lane.
>
> 4. When approaching a place where a right turn is authorized.

Any person operating a bicycle upon a roadway of a highway, which highway carries traffic in one direction only and has two or more marked traffic lanes, may ride as near the left-hand curb or edge of that roadway as practicable.

For roadways which do contain designated bike lanes, the California Vehicle Code contains the following language regarding permitted bicycle movements:

(VC 21208) – Whenever a bicycle lane has been established on a roadway pursuant to Section 21207, any person operating a bicycle upon the roadway at a speed less than the normal speed of traffic moving in the same direction at that time shall ride within the bicycle lane, except that the person may move out of the lane under any of the following situations:

1. When overtaking and passing another bicycle, vehicle, or pedestrian within the lane or about to enter the lane if the overtaking and passing cannot be done safely within the lane.

2. When preparing for a left turn at an intersection or into a private road or driveway.

3. When reasonably necessary to leave the bicycle lane to avoid debris or other hazardous conditions.

4. When approaching a place where a right turn is authorized.

Additional requirements within the California Vehicle Code for bicycles that help maximize safety for bicyclists include:

(VC 21650.1) – A bicycle operated on a roadway, or the shoulder of a highway, shall be operated in the same direction as vehicles are required to be driven upon the roadway.

(VC 22111) – All required signals given by hand and arm shall be given from the left side of a bicycle in the following manner:

- *Left Turn* - Left hand and arm extended horizontally beyond the side of the bicycle.

- *Right Turn* - Left hand and arm extended upward beyond the side of the bicycle OR right hand and arm extended horizontally to the side of the bicycle.

- *Stopping or Sudden Decrease in Speed* – Hand and arm extended downward beyond the side of the bicycle.

BIKEWAY DESIGN

The Caltrans Highway Design Manual designates design criteria, including signing and pavement requirements, for designated bikeways within California. In addition, the Caltrans Traffic Manual provides additional standards relating to signs and delineation barrier systems. Criteria and policies provided for within the Highway Design Manual provide a guide for engineers to exercise sound judgment in applying standards which are consistent with the goals outlined within this study. The Caltrans Highway Design Manual generally conforms to the standards and policies set forth in the AASHTO publication "A Policy on Metric Design of Highways and Streets 2001." However, since AASHTO policies and standards (which are established as nationwide standards) don't always satisfy California conditions, more specific criteria unique to California have been established. The design standards used for any proposed project should equal or exceed the minimum standards outlined within the Highway Design Manual to the maximum extent feasible, taking into

consideration costs, traffic volumes, traffic and safety benefits, right-of-way, socio-economic and environmental impacts, etc.

Although the City of Sacramento generally utilizes Caltrans Highway Design criteria for use in designing bikeways, the City has outlined specific design criteria found within the 2010 Sacramento City/County Bikeway Master Plan that incorporates Caltrans Highway Design criteria.

Bikeways are divided into three types of classes which define the level of separation between the bikeways and vehicular traffic. The Caltrans Highway Design Manual defines these three bikeway classes as follows:

1. Class I Bikeway (Bike Path). Provides a completely separated right of way for the exclusive use of bicycles and pedestrians with cross-flow minimized.

2. Class II Bikeway (Bike Lane). Provides a striped lane for one-way bike travel on a street or highway.

3. Class III Bikeway (Bike Route). Provides for shared use with pedestrian or motor vehicle traffic.

The 2010 Sacramento City/County Bikeway Master Plan defines these three bikeway classes as follows:

1. Class I Bikeway (Bike Trail or Bike Path). A completely separated facility designated for the use of bicycles. The facility is separated from the street or highway by a physical space, berm, fence, or other barrier.

2. Class II Bikeway (Bike Lane). A lane within a street or roadway designed for the one-way use of bicycles. It is an on-street facility with signs, striped lane markings, and pavement legends.

3. Class III Bikeway (Bike Route). Any on street right-of-way recommended for bicycle travel which provides for shared use with motor vehicles or pedestrian traffic.

Class I Bikeways

Class I bikeways, or bike paths as they are commonly called, are facilities with exclusive right of way, with cross flows by motorists minimized. A Class I bikeway provides the safest and most efficient means of bicycle travel and is the preferred option for bikeway development. Although Caltrans' Street and Highways Code specifies that Class I bikeways serve "the exclusive use of bicycles and pedestrians," dual use of a Class I bikeway by both pedestrians and bicycles is undesirable, and the two should be separated wherever possible (especially if pedestrian use is anticipated to be particularly heavy) to minimize bicycle/pedestrian conflicts.

Class I bikeways require the greatest amount of space and advanced planning to reserve land and assure appropriate routing. If a Class I bikeway does not closely parallel a roadway, it should be designed to provide appropriate bikeway gradient and curvature.

Class I Bikeway Widths

The 2010 Sacramento City/County Bikeway Master Plan stipulates that the minimum paved width for a two-way bike path shall be 8 ft (as depicted in **Figure 6-9**), and the minimum paved width for a one-way bike path shall be 5 ft. Additionally, it is required that a minimum 3 ft wide graded area shall be provided adjacent to the pavement, unless a paved width wider than the minimum is provided whereby the graded area may be reduced accordingly.

Class I Bikeway Intersection Design

The 2010 Sacramento City/County Bikeway Master Plan also provides the following design criteria for the intersection of Class I Bikeways with roadways:

- Intersections are a prime consideration in bike path design. If alternate locations for a bike path are available, the one with the most favorable intersection conditions should be selected.
- Where motor vehicle cross traffic and bicycle traffic is heavy, grade separations are desirable to eliminate intersection conflicts. Where grade separations are not feasible, assignment of right of way by traffic signals should be considered. Where traffic is not heavy, stop or yield signs for bicyclists may suffice.
- Bicycle path intersections and approaches should be on relatively flat grades. Stopping sight distances at intersections should be checked and adequate warning should be given to permit bicyclists to stop before reaching the intersection, especially on downgrades.
- When crossing an arterial street, the crossing should either occur at the pedestrian crossing, where motorists can be expected to stop, or at a location completely out of the influence of any intersection to permit adequate opportunity for bicyclists to see turning vehicles.
- When crossing at mid-block locations, right-of-way should be assigned by devices such as yield signs, stop signs, or traffic signals which can be activated by bicyclists. Even when crossing within or adjacent to the pedestrian crossing, stop or yield signs for bicyclists should be placed to minimize potential for conflict resulting from turning autos.

Class I Bikeway – Other Design Criteria

The 2010 Sacramento City/County Bikeway Master Plan also provides the following miscellaneous design criteria for Class I bikeways:

- A wide separation is recommended between bike paths and adjacent highways. Bike paths closer than 5 ft from the edge of the shoulder shall include a physical barrier to prevent bicyclists from encroaching onto the highway.

PHOTO #1
View of riparian area near Truxel Road alignment in Discovery Park.

PHOTO #2
View of wildlife and riparian area along the North Fork of Laguna Creek.

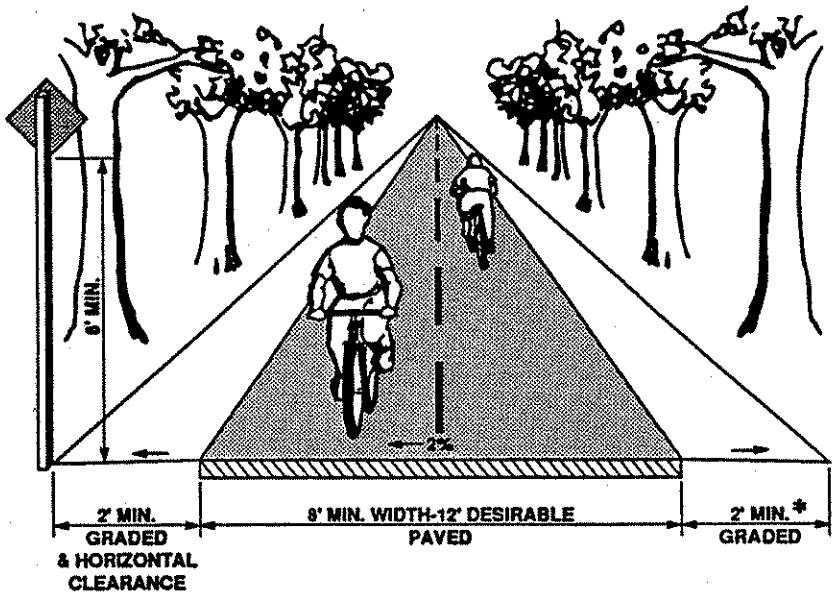
PHOTO #3
View of Granite Regional Park from the southwest corner.

PHOTO #4
View of canal bank gravel road along Natomas Main Drainage.

SOURCE: AES, 2003

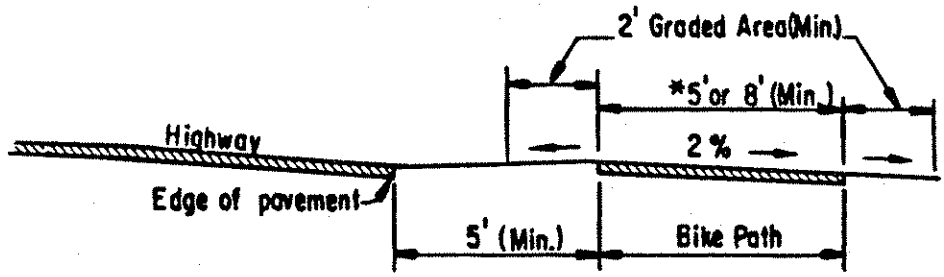
Figure 6-8
Site Photographs

Two-way Bike Path on Separate Right-of-Way



* Note: County Parks Department recommends 4' minimum graded shoulder.

Typical Cross Section of Bike Path Along Highway



* One-Way: 5' Minimum Width
Two-Way: 8' Minimum Width-12' Desirable

SOURCE: City of Sacramento, 1992 ; AES, 2003

Figure 6-9
Class I Bikeway

As a general rule, bike paths in the median of highways are not recommended because they require movements contrary to normal rules of the road.

- A yellow centerline stripe may be used to separate opposing directions of travel, and is particularly beneficial where bicycle use is heavy, on curves with restricted sight distance, where the path is unlighted and nighttime riding is expected, and on bike paths wider than 8 ft in width.

Class II Bikeways

Class II bikeways, or bike lanes as they are commonly called, are established within the paved right-of-way area of roadways for preferential use by bicycles. The bikeway is delineated by pavement markings consisting of a continuous stripe on the pavement, as well as bikeway pictograph on the pavement, and bike lane signs. Bike lane stripes are intended to promote an orderly flow of traffic by establishing specific lines of demarcation between areas reserved for bicycles and lanes to be occupied by motor vehicles. Bike lane stripes can increase bicyclists' confidence that motorists will not stray into their path of travel if they remain within the bike lane. Likewise, with more certainty as to where bicyclists will be, passing motorists are less apt to swerve toward opposing traffic in making certain they will not hit bicyclists.

Class II bikeways generally require less space than Class I bikeways because they follow the alignment of and share the right-of-way with a roadway or walkway. Because Class II bikeways are tied to the adjacent roadway, route selection is important to maintain appropriate bikeway gradients and curvature.

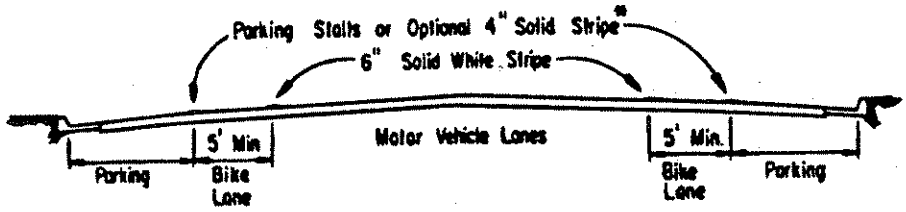
Class II Bikeway Widths

The 2010 Sacramento City/County Bikeway Master Plan stipulates that Class II bikeways shall be one-way facilities since two-way bike lanes (or bike paths that are contiguous to the roadway) have proved unsatisfactory and promote riding against the flow of motor vehicle traffic. If the bike lanes are to be located on one-way streets, they should be placed on the right side of the street. Bike lanes on the left side would cause bicyclists and motorists to undertake crossing maneuvers in making left turns onto a two-way street.

The 2010 Sacramento City/County Bikeway Master Plan stipulates minimum paved widths for four different types of Class II bikeways, which are depicted graphically in **Figure 6-10**.

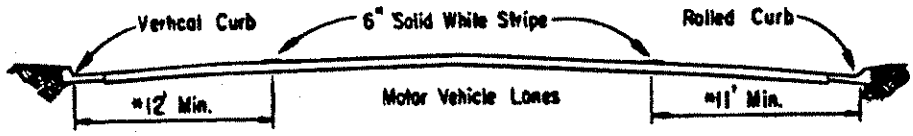
a) Class II Bikeway – Striped Parking – The first roadway cross section depicted in **Figure 6-10** illustrates design criteria for a bike lane on an urban type curbed street where parking stalls (or continuous parking stripes) are marked. Bike lanes are located between the parking area and the traffic lanes. Bike lanes shall not be placed between the parking area and the curb. The minimum width of the bike lane where parking stalls are marked shall be 5 ft. Additional width is recommended (1 to 2 ft per the Caltrans Highway Design Manual) if parking volume is substantial or turnover is high.

Typical Bike Lane Cross Sections
(On 2-lane or Multilane Highways)



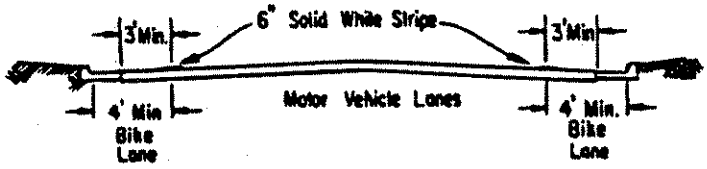
* The optional solid white stripe may be advisable where stalls are unnecessary (because parking is light) but there is concern that motorists may misconstrue the bike lane to be a traffic lane.

(1) STRIPED PARKING

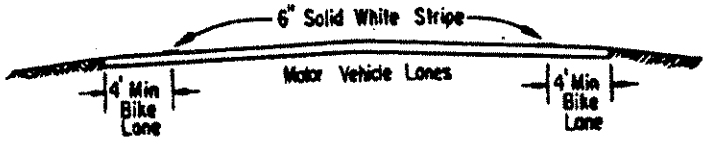


* 13' is recommended where there is substantial parking or turnover of parked cars is high (e.g. commercial areas).

(2) PARKING PERMITTED WITHOUT PARKING STRIPE OR STALL



(3) PARKING PROHIBITED



(4) TYPICAL ROADWAY IN OUTLYING AREAS PARKING RESTRICTED

SOURCE: City of Sacramento, 1992 ; AES, 2003

Figure 6-10
Class II Bikeways

b) Class II Bikeway – Parking Permitted Without Parking Stripe or Stall – The second roadway cross section depicted in **Figure 6-10** illustrates design criteria for a bike lane on an urban-type curbed street, where parking is permitted, but without parking stripe or stall marking. Bike lanes are established in conjunction with the parking areas. The minimum width of the bike lane where parking is permitted shall be 11 or 12 ft (depending on the type of curb). Additional width is recommended (1 to 2 ft per the Caltrans Highway Design Manual) if parking volume is substantial or turnover of parked cars is high.

c) Class II Bikeway – Parking Prohibited – The third roadway cross section depicted in **Figure 6-10** illustrates design criteria for bike lanes along the outer portions of an urban type curbed street, where parking is prohibited. This is generally the most desirable configuration for bike lanes, as it eliminates potential conflicts resulting from auto parking (e.g., opening car doors). As indicated, if no gutter exists, the minimum bike lane width shall be 4 ft. With a normal 2 ft gutter, the minimum bike lane width shall be 5 ft. The intent is to provide a minimum 4 ft wide bike lane, but with at least 3 ft between the traffic lane and the longitudinal joint at the concrete gutter. Where gutters are wide (say, 4 ft), an additional 3 ft must be provided because bicyclists should not be expected ride in the gutter. Wherever possible, the width of bike lanes should be increased to 6 or 8 ft to provide far greater safety.

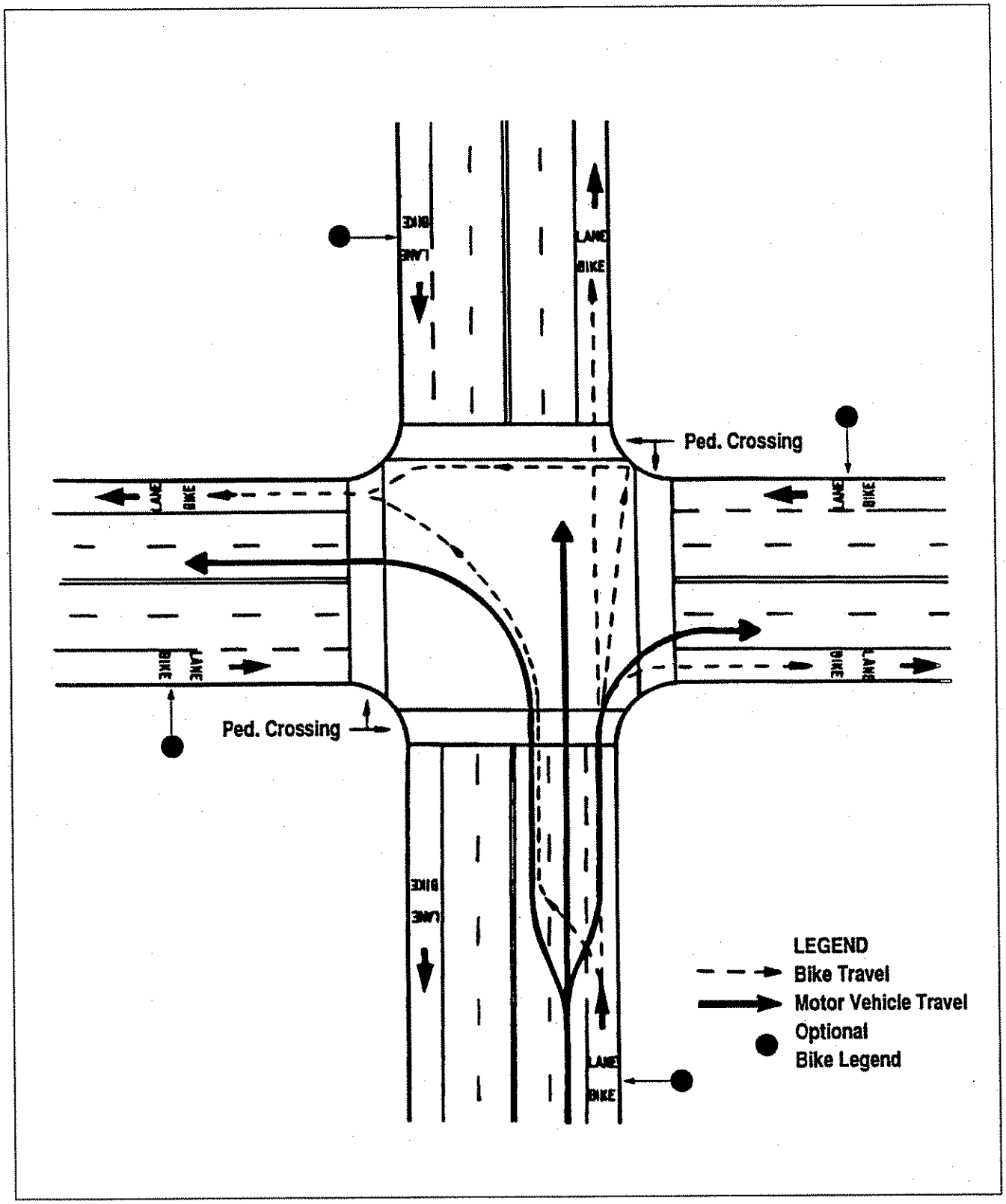
d) Class II Bikeway – Typical Roadways in Outlying Areas Parking Restricted – The fourth roadway cross section depicted in Figure 6-10 illustrates design criteria for bike lanes on a roadways without curbs and gutters. This location is in an undeveloped area where infrequent parking is handled off the pavement. As indicated, the minimum width of the bike lane along this type of facility shall be 4 ft. Additional width is desirable particularly where vehicular speeds exceed 40 mph. The typical traffic lane width next to a bike lane is 12 ft, but where favorable conditions exist motor vehicle lanes of 11 ft may be feasible. There are situations where it may be necessary to reduce the width of the vehicular travel lane in order to stripe bike lanes.

Class II Bikeway Intersection Design

The 2010 Sacramento City/County Bikeway Master Plan also provides the following design criteria with respect to Class II Bikeways through intersections:

- Most auto/bicycle accidents occur at intersections. For this reason, bikeway design at intersections should be accomplished in a manner that will minimize confusion by motorists and bicyclists, and will permit both to operate in accordance with the normal rules of the road.

- **Figure 6-11** illustrates a typical intersection of multilane streets, with bike lanes on all approaches. Some common movements of motor vehicles and bicycles are shown. A



SOURCE: City of Sacramento, 1992 ; AES, 2003

Figure 6-11

Typical Bicycle-Auto Movements at Intersections of Multilane Streets

prevalent type of accident involves straight-through bicycle traffic and right-turning motorists. Left-turning bicyclists also have problems, as the bike lane is on the right side of the street, and bicyclists have to cross the path of cars traveling in both directions. Some bicyclists are proficient enough to merge across one or more lanes of traffic, to use the inside lane or left-turn by riding along a course similar to that followed by pedestrians, as shown in the diagram. Young children will often prefer to dismount and change directions by walking their bike in the cross walk.

- At intersections where there is a bike lane and traffic-actuated signal, installation of bicycle-sensitive detectors within the bike lane is desirable. Push button detectors are not as satisfactory as those located in pavement because the cyclist must stop to actuate the push button. It is also desirable that detectors in left-turn lanes be sensitive enough to detect bicycles. At intersections (without bike lanes) with significant bicycle use and a traffic-actuated signal, it is desirable to install detectors that are sensitive enough to detect bicycles.

- **Figure 6-12** illustrates recommended striping patterns for bike lanes crossing a motorist right-turn-only lane. When confronted with such intersections, bicyclists will have to merge with right-turning motorists. Since bicyclists are typically traveling at speeds less than motorists, they should signal and merge where there is a sufficient gap in right turning traffic, rather that at any predetermined location. For this reason, it is recommended that all delineation be dropped at the approach of the right-turn lane (or off ramp). A pair of parallel lines (delineating a bike lane crossing) to channel the bike merge is not recommended, as bicyclists will be encouraged to cross at a predetermined location, rather that when there is a safe gap in right turning traffic. Also, some bicyclists are apt to assume they have the right of way, and may not check for right turning motor vehicle traffic.

- A dashed line across the right-turn-only lane is not recommended on extremely long lanes, or where there are double right-turn-only lanes. For these types of intersections, all striping should be dropped to permit judgment by the bicyclists to prevail. A Bike Xing sign may be used to warn motorists of the potential for bicyclists crossing their path.

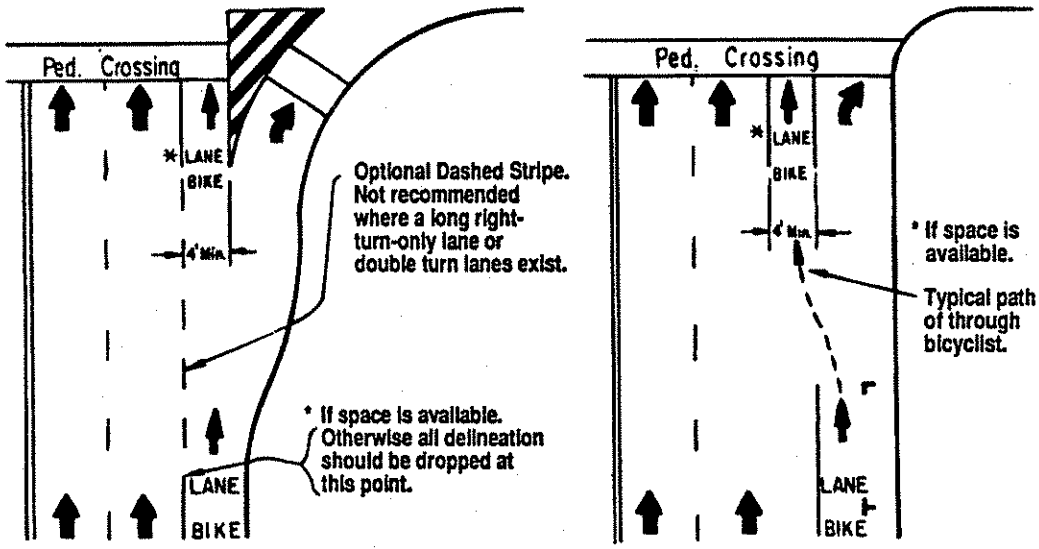
Class II Bikeway – Other Design Criteria

The 2010 Sacramento City/County Bikeway Master Plan also provides the following miscellaneous design criteria for Class II bikeways:

- Raised barriers or raised pavement markers shall not be used to delineate lanes because they increase the difficulty for bicyclists when entering or exiting bike lanes, and prevent motorists from merging into bike lanes before making right hand turns, as required by the vehicle code.

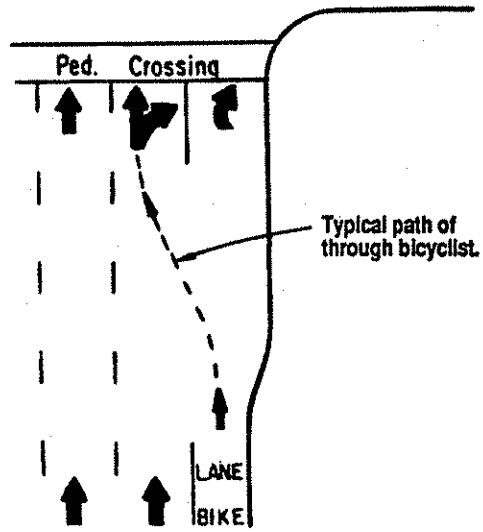
- Bike lane stripes should be placed at a constant distance from the outside motor vehicle lane.

- Where transitions from one type of bike lane to another are necessary, smooth tapers should be provided.

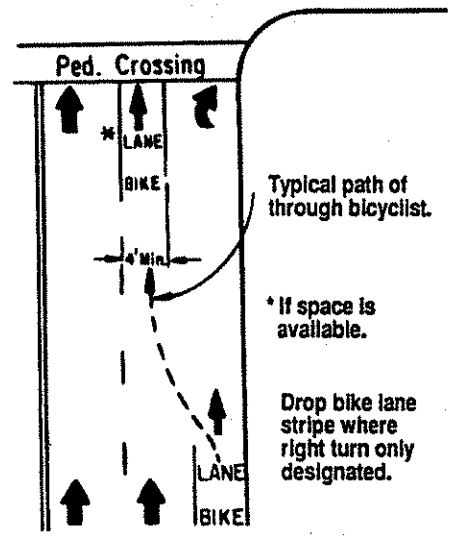


RIGHT-TURN-ONLY LANE

PARKING AREA BECOMES RIGHT-TURN-ONLY LANE



OPTIONAL DOUBLE RIGHT-TURN-ONLY LANE



RIGHT LANE BECOMES RIGHT-TURN-ONLY LANE

SOURCE: City of Sacramento, 1992 ; AES, 2003

Figure 6-12

Bike Lanes Approching Motorist Right-turn-only Lanes

Class III Bikeways

Class III bikeways, or bike routes as they are commonly called, are intended to provide continuity to the bikeway system. Bike routes are established along through routes not served by Class I or II bikeways, or to connect discontinuous segments of bikeway (normally bike lanes). Class III facilities are shared facilities, either with motor vehicles on the street, or with pedestrians on sidewalks, and in either case bicycle usage is secondary. Class III facilities are established by placing Bike Route signs along roadways, and by definition are not indicated by a continuous stripe on the pavement or separated by any type of barrier. Because no separation is provided, there is a higher potential for safety conflicts between automobiles and bicycles and between bicycles and pedestrians.

Class III bikeways require the least space because they share the pavement with a roadway or walkway. Because Class III bikeways share the roadway or walkway, route selection is important to maintain appropriate bikeway gradients and curvature.

Class III Bikeway Design Criteria

Per the 2010 Sacramento City/County Bikeway Master Plan, minimum widths for Class III bikeways are not defined, as the acceptable width is dependent on many factors including the volume and character of vehicular traffic on the road, typical speeds, vertical and horizontal alignment, sight distance, and parking conditions.

Since bicyclists are permitted on all highways (except prohibited freeways), the decision to sign the route should be based on the advisability of encouraging bicycle travel on the route and other factors listed below. To be of benefit to bicyclists, bike routes should offer a higher degree of service than alternative streets. Routes should be signed only if some of the following apply:

a) They provide for through and direct travel in bicycle-demand corridors.

b) Connect discontinuous segments of bike lanes.

c) An effort has been made to adjust traffic control devices (stop signs, signals) to give greater priority to bicyclists, as compared with alternative streets. This could include placement of bicycle sensitive detectors on the right hand portion of the road, where bicyclists are expected to ride.

d) Street parking has been removed or restricted in areas of critical width to provide improved safety.

e) Surface imperfections or irregularities have been corrected (e.g., utility covers adjusted to grade, potholes filled, etc.).

f) Maintenance of the route will be at a higher standard than that of other comparable streets (e.g., more frequent street sweeping).

Miscellaneous Bikeway Criteria

The following are miscellaneous bikeway criteria, which should be followed to the extent pertinent to Class I, II and III bikeways. Some, by their very nature, will not apply to all classes of bikeways. Many of the criteria are important to consider on any highway where bicycle travel is expected, without regard to whether or no bikeways are established.

- *Bridges.* Bikeways on highway bridges must be carefully coordinated with approach bikeways to make sure that all elements are compatible. For example, bicycle traffic bound in opposite directions is best accommodated by bike lanes on each side of a highway.

- *Surface Quality.* The surface to be used by bicyclists should be smooth, free of potholes, and the pavement edge uniform.

- *Drainage Grates, Manhole Covers, and Driveways.* Drainage inlet grates, manhole cover, etc., on bikeways should be designed and installed in a manner that provides an adequate surface for bicyclists. They should be maintained flush with the surface when resurfacing. Drainage inlet grates on bikeways shall have openings narrow enough and short enough to assure bicycle tires will not drop into the grates (e.g., reticuline type), regardless of the direction of bicycle travel. Drainage grates on bridges with a bike path facility should be designed to minimize debris buildup.

- *At-grade Railroad Crossings and Cattle Guards.* Whenever it is necessary to cross railroad tracks with a bikeway, special care must be taken to assure that the safety of bicyclists is protected. The bikeway crossing should be at least as wide as the approaches of the bikeway. Wherever possible, the crossing should be straight and at right angles to the rails. For on-street bikeways where a skew is unavoidable, the shoulder (or bike lane) should be widened, if possible, to permit bicyclists to cross at right angles.

- *Hazard Markings.* Vertical barriers and obstructions, such as abutments, piers, and other features causing bikeway constriction, should be clearly marked to get the attention of approaching bicyclists.

- *Lighting.* Bikeway lighting should be considered along long routes where nighttime riding is expected. This is particularly important for bike paths serving commuter routes, such as paths leading to colleges. Adequate lighting is also important at bike path crossings of streets and for underpasses.

EDUCATION

Neither the establishment of bicycle laws within the Vehicle Code, or improved bikeway design, will totally ensure bicycle safety. Bicyclists frequently complain about errant, inattentive motorists or riding into unexpected obstacles, while motorists complain of the carelessness and unpredictability of bicyclists darting out of driveways, swerving into traffic lanes, or riding the wrong way on the road.

Predictability is a key factor in automobile safety, with each motorist depending on the other motorists to follow the rules of the road, and although there are many responsible cyclists, on a collective level, cyclists are less apt to follow the rules of the road than motorists. Unpredictable actions such as failure to stop for traffic signals, riding against traffic, or unsignalled turns can catch motorists off guard leading to accidents (Bikeway Master Plan 1991).

Much of the safety problem is an attitude problem. Many people continue to feel that the bicycle is still a child's toy which perpetuates the tendency to ignore illegal and dangerous cycling and driving practices (2010 Sacramento City/County Bikeway Master Plan).

Almost all bicycle/auto accidents are due to bicyclists or motorists violating a specific traffic law, either intentionally or out of ignorance. Education would minimize the unintentional infractions and strict enforcement would limit both intentional and unintentional infractions.

ACCIDENT STATISTICS

Bicyclists riding the wrong way are the single largest factor in bike/vehicle accidents, and have statistically accounted for approximately 40% of reported accidents (Bikeway Master Plan 1991). It is probable that parents are teaching their children to ride facing traffic because they have been instructed that this is the safest approach to bicycling on the street system (2010 Sacramento City/County Bikeway Master Plan).

Lack of adequate lighting on bicycles is another leading factor contributing to bicycle/auto accidents. Approximately 25% of all fatalities occur at night, dawn or dusk, and it is probable that lack of bicycle lighting accounts for many of these accidents due to the inability of the motorist to either see, or accurately gauge the speed, of the bicyclist (Bikeway Master Plan 1991).

Intersections, however, are where a significant majority of bicycle/auto accidents occur. **Table 6.5-1** shows that nearly 75% of all bicycle/auto accidents occurring within the City of Sacramento between 2000 and 2002 occurred either within an intersection (45.6%) or within 100 foot of an intersection (28.9%). Most bicycle/auto accidents within intersections occur as a result of right turning vehicles interfering with bicycles proceeding straight ahead, or left turning cyclists who must weave through traffic to reach the left turn lane, and complete the left turn movement.

TABLE 6.5-1

City of Sacramento Bike Accident Data (2000-2002) – Location of Accident

Location	2000		2001		2002		TOTAL 3 Year	
of Accident	#	%	#	%	#	%	#	%
Within Intersection	111	49.3%	102	46.6%	99	41.3%	312	45.6%
1-99' of Intersection	59	26.2%	61	27.9%	78	32.5%	198	28.9%
Mid-block (>100 from Intersection)	55	24.4%	56	25.6%	63	26.3%	174	25.4%
TOTAL	225		219		240		684	

SOURCE: City of Sacramento, Traffic Engineering Crossroads Collision Database.

Additional factors which frequently contribute to bicycle/auto accidents are as follows:

- Bicycle ride-out (from driveway/alley)
- Bicycle ride-out (controlled intersection)
- Motorist drive-out
- Motorist overtaking
- Bicyclist unexpected turn/swerve
- Motorist unexpected turn

The tables below provide summaries of accident statistics covering the 3 year period between 1/1/2000 and 12/31/2002 within the City of Sacramento. The raw accident statistics are broken down into categories summarizing the location of the accident **(Table 6.5-1)**, the number of fatalities and injuries **(Table 6.5-2)**, and the primary collision factor contributing to the accident **(Table 6.5-3)**. A figure showing the locations of these accidents, and tables providing detailed information regarding these accidents, are provided in the Appendix.

The tables show that the City of Sacramento experiences an average of 228 bicycle/auto accidents per year, nearly all of which include an injury. On average, 2 or 3 bicyclists are killed per year within the City of Sacramento, accounting for approximately 1% of all bicycle/auto accidents.

TABLE 6.5-2

City of Sacramento Bike Accident Data (2000-2002) – Injuries/Fatalities

Injuries / Fatalities	2000	2001	2002	TOTAL 3 Year
Injuries	223	213	222	658
Fatalities	2	2	3	7

SOURCE: City of Sacramento, Traffic Engineering Crossroads Collision Database.

TABLE 6.5-3

City of Sacramento Bike Accident Data (2000-2002) – Primary Collision Factors

Principal Contributing	2000		2001		2002		TOTAL 3 Year	
Factor of Accident	#	%	#	%	#	%	#	%
Wrong Side of Road	47	20.9%	69	31.5%	62	25.8%	178	26.0%
Auto R/W Violation	47	20.9%	53	24.2%	58	24.2%	158	23.1%
Traffic Signals and Signs	37	16.4%	20	9.1%	35	14.6%	92	13.5%
Other Hazardous Movement	15	6.7%	12	5.5%	25	10.4%	52	7.6%
Improper Turning	21	9.3%	16	7.3%	22	9.2%	59	8.6%
Driving Under Influence	17	7.6%	18	8.2%	5	2.1%	40	5.8%

Unsafe Speed	8	3.6%	7	3.2%	6	2.5%	21	3.1%
Other Improper Driving	4	1.8%	3	1.4%	6	2.5%	13	1.9%
Improper Passing	5	2.2%	1	0.5%	2	0.8%	8	1.2%
Lights	2	0.9%	1	0.5%	2	0.8%	5	0.7%
Unsafe Lane Change	1	0.4%	3	1.4%	0	--	4	0.6%
Unsafe Starting or Backing	2	0.9%	0	--	2	0.8%	4	0.6%
Ped R/W Violation	1	0.4%	1	0.5%	1	0.4%	3	0.4%
Pedestrian Violation	3	1.3%	0	--	0	--	3	0.4%
Other Equipment	0	--	0	--	1	0.4%	1	0.1%
Other Than Driver or Ped	0	--	1	0.5%	0	--	1	0.1%
Unknown	15	6.7%	14	6.4%	13	5.4%	42	6.1%
TOTAL	225		219		240		684	

SOURCE: City of Sacramento, Traffic Engineering Crossroads Collision Database.

TRANSPORTATION

Barriers to Bicycle Transportation

Barriers to bicycle transportation occur where the existing circulation network might not provide for the safe through movements of bicycles along the roadway network. For purposes of this discussion, physical barriers to through bicycle travel are defined as freeways, drainages, rivers and railroad right-of-ways. Although crossings may be available to vehicular traffic across these barriers, they may act as a physical barrier to bicycles, particularly if the roadway is not designated as a bikeway.

There are four types of crossings:

1) Pedestrian/bicyclist overcrossings are considered the safest because they are used exclusively by bicyclists and pedestrians and generally connect streets with low traffic volumes.

2) Tunnels are safe in terms of eliminating bicycle/vehicular conflicts, but safety issues do arise due to security issues.

3) Bridges over freeways/rivers without interchanges are considered relatively safe because the bicycle does not have to compete with turning volumes at either end of the bridge.

4) Bridges over freeways with interchanges are considered to be inherently dangerous because the bicycle must compete with numerous high speed vehicles merging onto and off of the freeway.

Perhaps the most significant barrier within the City of Sacramento is the American River, which is a major barrier to north-south traffic. Bridges currently available to bicycle traffic within the City of Sacramento include (from east to west) the Jiboom Street Bridge within Discovery Park, a dedicated

American River pedestrian/bicycle crossing near 14th Street, and Guy West Bridge at California State University-Sacramento. Although bridges across the American River are provided for vehicular traffic along Watt Avenue, Howe Avenue, and Fair Oaks Boulevard, none are designated as bike routes. Bicycle traffic is prohibited along the freeway bridges on I-5, SR-160, and the Capitol City Freeway.

Conflicts at Intersections

A barrier can also exist when the roadway has such heavy traffic volumes that the intersections and interchanges act as barriers to through bicycle movements because the bicycle cannot compete safely with the large number of vehicles and high turning movement volumes.

Bike Lane Design Conflicts along Roadways

Since class II and class III bikeways are located along the edges of the traveled way of roadways, they must compete for right-of-way width with not only the portion of the roadway used by through vehicles, but also the portion of the roadway dedicated to on-street parking.

LOCAL AND REGIONAL TRANSPORTATION PLANS

SACOG's Metropolitan Transportation Plan for 2025

The Sacramento Area Council of Governments (SACOG) is designated by the United States Department of Transportation (DOT) and the Environmental Protection Agency (EPA) as the designated metropolitan planning organization (MPO) for the six-county area comprised of Sacramento, Yolo, Yuba, Sutter, El Dorado, and Placer Counties (excluding the Tahoe Basin). Under federal law, SACOG is responsible for long-range planning within this region. In 1999, SACOG initiated a 3-year study to provide a 23 year plan outlining the regional vision for all modes of surface transportation, within the constraints of funding that the region can reasonably expect to receive.

On July 18, 2002 the Board of Directors adopted the Metropolitan Transportation Plan (MTP) for 2025 Final Draft, Final Environmental Impact Report for the plan, and Air Quality Conformity Determination. The MTP uses the transportation plans of cities and counties as its primary building blocks, providing coordination between them and focusing on transportation strategies that link different locations in the region such as highways, rail, bus services and bikeways. An important goal of the MTP is to develop a comprehensive, coordinated, multi-modal plan for the region that can be used as an advocacy document to obtain funding.

The MTP allocates $281 million for local bicycle and pedestrian projects or programs, or as funds which can be used to match regional bicycle and pedestrian programs.

The MTP acknowledges problems associated with the American River by stating "The American River is a particularly problematic barrier, since a large amount of development in Sacramento County exists and is planned on both sides of the river, and there are few bridges."

Additionally, the MTP states that a designated "Metropolitan Transportation System" will continue to its major focus. The Metropolitan Transportation System consists of the following relevant components with respect to this study:

- Bicycle and Pedestrian Ways - Metropolitan Transportation System includes bicycle ways that are regionally significant, using criteria developed by SACOG's Bicycle Task Force in 1993.

- River Crossing and Approaches – River crossings are vital links across natural barriers. Since the number of available river crossings is limited, these facilities are often congested.

As stated within the MTP, bicycle improvements in the plan are not yet specified, pending a Regional Bicycle, Pedestrian and Trails Master Plan to be developed in the next couple years; however, substantial funding is reserved in the MTP for projects that will be prioritized in the Regional Bicycle, Pedestrian and Trails Master Plan.

The MTP includes the following capitol improvement projects for the City of Sacramento which correspond to roadways identified as amended bikeways within this study. The projects are divided into the various community plan areas which have proposed bikeway amendments. The year for which the project is planned, whether it is a tier one or tier two project, and the funding source are also provided. Tier 1 projects correspond to either programmed projects or projects for which revenues are reasonably expected. Tier 2 projects are potential projects which would be financed through additional potential revenue sources.

North Natomas

- Extend Arena Boulevard as a 6-lane roadway from Duckhorn to I-5 without interchange (Tier 1)(Developer or Partially Developer Funded)(2004) – *NOTE: Under Construction WITH Interchange*

- Construct Arena Boulevard from East Commerce Way to I-5 as 8-lane facility (Tier 1) (Developer or Partially Developer Funded)(2004) – *NOTE: Under Construction*

- Widen and extend Natomas Crossing Drive as a 4-lane roadway between El Centro Road and East Commerce Way including overcrossing over I-5 (Tier 1) (Developer or Partially Developer Funded)(2016)

- Widen and extend Snowy Egret Way as a 4-lane roadway between El Centro Road and East Commerce Way including overcrossing over I-5 (Tier 1) (Developer or Partially Developer Funded)(2022)

South Natomas

- Widen Garden Highway to 4-lanes from the western terminus of the Arden Garden connector to 300 ft east of I-5 ramps (Tier 1)(Publicly Funded)(2025)

Tahoe Park

- Extend 4th Avenue from 65th Street to Ramona Avenue (Tier 1)(Publicly Funded)(2020)
- Widen Power Inn Road from 4-lanes to 6-lanes between Folsom Boulevard and 14th Avenue with expanded intersection along entire length (Tier 1)(Publicly Funded)(2015)
- Extend 2-lane Romona Avenue with center turn lane from 4th Avenue to 14th Avenue, and from 14th Avenue to Folsom Boulevard with bike lanes (Tier 1)(Publicly Funded)(2008)
- Widen 65th Street to 6-lanes between US-50 and Broadway (Tier 2)(2025)

SACOG's 2003/05 Metropolitan Transportation Improvement Plan

As the Metropolitan Planning Organization (MPO) for the region, SACOG prepares and maintains a federal Metropolitan Transportation Improvement Program (MTIP) which lists all transportation related project requiring federal funding or other approval by the Federal Highway Administration (FHWA) or Federal Transit Administration (FTA). The MTIP also lists non-federal, regionally significant projects for information and air quality emissions modeling purposes. The MTIP indicates the area's short-term plan for use of federal dollars, and inclusion of a project or program in the MTIP is a prerequisite for federal approval or funding. The MTIP must cover a minimum of three years and be financially constrained, meaning that funding must be available and committed to implement listed projects. Only projects with a dedicated funding source are allowed in the first two fiscal years, while projects in the third year must be carefully reviewed to ensure that funds will be available. The MTIP serves as the short term implementation plan for the MTP.

The 2003/05 MTIP was adopted by the SACOG Board on July 18, 2002. The MTIP includes the following projects within the City of Sacramento which correspond to roadways identified as amended bikeways within this study. The projects are divided into the various community plan areas which have proposed bikeway amendments. The planned year of completion for the project, whether it is a federal project or regionally significant project, and the funding source, are also provided.

North Natomas

- Extend Arena Boulevard as a 6-lane roadway from Duckhorn to I-5 without interchange (Regionally Significant Project)(Developer Funded)(2004) – *NOTE: Under Construction*
- Construct Arena Boulevard from East Commerce Way to I-5 as 8-lane facility (Tier 1) (Regionally Significant Project)(Developer Funded)(2004) – *NOTE: Under Construction*
- Construct 6-lane Arena Boulevard interchange (Regionally Significant Project)(Developer Funded)(2004) – *NOTE: Under Construction*
- Light rail extension from downtown Sacramento to Natomas Town Center (Federal Project)(Publicly Funded)(2012)

Community Plans

There are no current community plans for the East Sacramento Community Plan Area (which includes East City/McKinley Park) or the East Broadway Community Plan Area (which includes Tahoe Park and College Greens). The City of Sacramento General Plan governs these communities.

Community plans are long range planning documents that serve as a policy guide for planners, public officials, and landowners to assist them as decisions are made regarding the future development of the community. Community plans derive their regulatory authority from the statutory requirement that all development be in conformity with the plan. If a proposed project varies from the plan, the plan must either be amended or the project denied.

North Natomas Community Plan

The North Natomas Community Plan was adopted May, 1994. The plan calls for an integrated circulation system that specifically includes bikeways. Roadway design standards within the City include specific criteria which incorporate bikeways and provide additional safety measures for the bicyclist. For example, a major roadway designation within the City is "residential collector" which, per the community plan, contains 2 lanes with a center median, and other design features to handle additional residential traffic without impeding pedestrian and bicycle traffic. Additionally, the plan provides for local connections between neighborhoods through various transportation elements including bike trails.

Another implementation policy is a "Pedestrian Friendly Street Standards." This policy states that this design creates a pleasant and safe space for pedestrians and bicyclists on streets by including the following elements in street design: parallel parking, sidewalk, period breaks in any sound walls (at least every ¼ mile), bicycle lanes, street trees, and planter strips, and intersection detail.

The plan also specifically states that bikeways should be designed to be safe, and that providing a quality bicycle system is an important step to increase the likelihood that in individual will choose a mode of travel other than the automobile.

Specific implementing policies include:

- On-Street Bike Routes: Provide on-street signed and striped bikeways on designated major streets as outlined in the County of Sacramento 2010 Bikeways Master Plan, which needs to be updated to reflect the proposed circulation system.

- Off-Street Bikeways: Provide off-street pedestrian/bike routes along linear parkways or through civic and other uses. Also encourage private developers to design public access pedestrian and/or bikeways through large private developments to avoid impeding direct access between uses.

These policies have been interpreted by City of Sacramento traffic engineering staff to mean that all arterial, collector, and "residential collector" (70 ft and wider) facilities within the North Natomas Community be designed and constructed to include dedicated and striped Class II bikeway facilities.

South Natomas Community Plan

The South Natomas Community Plan was adopted November, 1988.

One of the specific implementing policies included within the Traffic and Level of Service section of the plan states:

- To facilitate the projected traffic volumes within existing rights of way, and to enhance safety, remove parking from all four-lane or greater major streets within South Natomas. Bike lanes would be established and maintained on these streets.

The guiding policy included within the Bicycle Routes section of the community plan is to "provide a system of on-street bicycle routes for bicycle commuters and attractive off-street bicycle paths for recreational bicyclists."

Specific implementing policies within the Bicycle Routes section of the plan include:

- Provide on-street signed and striped bikeways on designated major streets (which consist of the following roadways along which on-street bikeways are included as 2010 Bikeway Master Plan Amendments:
    - Arden Garden Connector (east of Northgate)
    - West River Drive
    - Orchard Lane

Provide off-street bikeways (none of which are included as 2010 Bikeway Master Plan Amendments):

Airport/Meadowview Community Plan

The Airport/Meadowview Community Plan was adopted April, 1984. The community plan recommended that commuter bike routes are especially important when employment generating uses are proposed, as with the industrial designation within the south area of the community. The plan further recommended that future bikeway development should give commuter and through routes a priority status. The plan also recommended that the previous Bikeway Master Plan be amended to include a series of additional bikeways, none of which are included as 2010 Sacramento City/County Bikeway Master Plan proposed amendments. None of the bikeways included as 2010 Sacramento City/County Bikeway Master Plan Amendments are shown as proposed bikeways within the community plan, with the exception of the section of the South Sacramento Parkway Bike Trail located parallel to I-5. The community plan includes a series of on-street bikeways within the southernmost section of the community along roadways which do not currently exist. The proposed South Sacramento Parkway Bike Trail would run through the center of this system of proposed on-street bikeways.

South Sacramento Community Plan

The South Sacramento Community Plan was issued August, 1986. The community plan recommended several new off-street bikeways in the Laguna area, although development within the area was relatively undefined at the time the plan was issued. The 2010 Sacramento City/County Bikeway Master Plan amendments include an off-street bikeway and a few on-street bikeways in the Laguna area. However, they do not correspond with those proposed within the community plan since the current proposed layout is dictated by the manner in which the Laguna area developed. Since the area south of Cosumnes River Boulevard and east of Bruceville Road was not within the City of Sacramento at the time the plan was issued (with the exception of a tiny section near Jacinto Road), none of the proposed amendments to the 2010 Sacramento City/County Bikeway Master Plan were included in the South Sacramento Community Plan. Additionally, neither the proposed amended bikeways consisting of the Cal Central Traction RR Trail nor the Morrison Creek Bike/Ped Bridge were identified specifically in the community plan.

6.5.3 IMPACTS AND MITIGATION MEASURES

Significance Criteria

A significant bikeway impact would occur if a project hindered or eliminated an existing designated bikeway, or if the project interfered with the implementation of a proposed bikeway. A significant bikeway impact would occur if a project were to increase bicycle/pedestrian or bicycle/motor conflicts.

Impact 6.5-1 Impacts to Bicycle Transportation due to Barriers

PP

North Natomas/South Natomas

The amended bikeway facilities were analyzed in terms of potential conflicts with barriers, namely I-5, the American River, and various canal and railroad crossings. Various off-street crossings of I-5 and I-80 within North and South Natomas would be dedicated pedestrian/bikeway crossing structures. On-street crossings of I-5 and I-80 within North and South Natomas would be located along future roadways, which would provide class II bikeways with provisions for safe bicycle crossings at freeway ramp intersections.

East City/McKinley Park

The following location has been identified as being physically constrained by the UP railroad bridge structure:

#2 – H Street Crossing - The roadway width through the tunnel beneath the railroad currently does not provide enough width to safely accommodate an unstriped class III bike route. This is considered a significant impact.

AA

No impact.

AB

North Natomas/South Natomas

The alternative recommends the elimination of the following bridges within the South Natomas Community Plan Area, which would provide more direct access across the American River between Natomas and Downtown Sacramento:

- #7 – New all weather crossing of Discovery Park parallel to I-5
- #9 – New American River crossing at Truxel

SACOG's Metropolitan Transportation Plan for 2025 identifies the need for additional river crossings of the American River, and a guiding policy within the North Natomas Community Plan states that a "quality bicycle system is an important step to increase the likelihood that in individual will choose a mode of travel other than the automobile." The only bike route presently available for bicycle commutes between Natomas and Downtown Sacramento are either the circuitous route through Discovery Park, or the dedicated American River pedestrian/bicycle crossing near 14th Street located to the extreme east side of Natomas. As the community of North Natomas continues to develop, bicycle commutes would also be expected to increase significantly, which would increase the need for additional and/or more direct bikeways across the American River. The elimination of either, or both, of the two bicycle crossings would conflict with this goal. The loss of either of these bridges, and in particular the American River bridge crossing, would potentially result in undesired mode shifts. Whereas the addition of bridge crossings would result in potential increased bicycle usage, the loss of planned bridge crossings would likely result in a mode shift away from bicycle usage to increased vehicle usage, resulting in increased congestion and bicycle travel times.

East City/McKinley Park

See Impact 6.5-1 for PP.

Mitigation

6.5-1 Impacts to Bicycle Transportation due to Barriers

PP

North Natomas/South Natomas

Adequate bicycle access across the American River between Natomas and Downtown Sacramento should be provided. If both proposed amended routes are eliminated, it is recommended that either an alternative direct crossing be established across the river, or that a class I or class II bikeway be provided along as much of the existing route as possible. This route would pass through Discovery Park, with the understanding that bicycles would need to utilize the Jiboom Street Bridge along which only a class III bike route could be designated.

East City/McKinley Park

#2 – H Street Crossing – Mitigation includes the removal of one westbound lane to accommodate a striped class II bike route. The City of Sacramento is currently evaluating whether both westbound lanes are necessary. The removal of this lane for motorized vehicular travel may shift traffic to another roadway such as J Street. The City of Sacramento shall evaluate the traffic impact that would occur on J Street prior to the development of the H Street bikeway. This segment of bikeway will be constructed only if the resulting traffic study show a less than significant impact on J Street. This segment of bikeway will not be constructed if J Street experiences a significant impact from the traffic shift.

AA No mitigation required.

AB See Mitigation 6.5-1 for PP.

Significance after Mitigation

Less-than-Significant

Impact 6.5-2 Impacts to Bicycle Transportation due to Intersection Conflicts

PP Accident potential at any and all major intersections is high, and designs must incorporate adequate design standards as established within the 2010 Sacramento City/County Bikeway Master Plan.

AA No impact.

AB See Impact 6.5-2 for PP.

Mitigation 6.5-2 Impacts to Bicycle Transportation due to Intersection Conflicts

PP Designs shall incorporate adequate design standards as established within the 2010 Sacramento City/County Bikeway Master Plan to reduce impacts to less than significant.

AA No mitigation required.

AB See Mitigation 6.5-2 for PP.

Significance after Mitigation

Less-than-Significant

Impact 6.5-3 Impacts to Roadways due to Bike Lane Design Conflicts

PP There are no safety related issues related to any of the proposed class I (off-street) bikeways. The optimum type of on-street bikeway facility is a dedicated, striped class II bike lane which delineates a separate path of travel for bicycles that separates them from vehicular traffic. Wherever possible, especially along arterial

roadways, class II bikeways should be provided. However some of the amendments are located along roadways which are physically constrained by narrow roadway widths or the presence of on-street parking. Those facilities which were identified as being potentially limited to class III bike routes, or those which might be able to provide class II bike lanes with elimination of on-street parking, are listed below. Although bikeways along non-arterial facilities can adequately be designated as class III bike routes, care should be taken when designing the class III facilities to assure they incorporate adequate design standards as established within the 2010 Sacramento City/County Bikeway Master Plan.

North Natomas

- #33 – Street Replaces off-street bikeway (Allegheny) –Will likely be limited to class III due to limited right-of-way and on-street parking. Since this roadway is shown to be 2-lane non-arterial roadway on the North Natomas Community Plan (and thus a collector roadway), a class III bike route is adequate. This is considered a less than significant impact.

- #34 – New Streets with bikeways (Allegheny) –Will likely be limited to class III due to limited right-of-way and on-street parking. Since this roadway is shown to be 2-lane non-arterial roadway on the North Natomas Community Plan (and thus a collector roadway), a class III bike route is adequate. This is considered a less than significant impact.

- #39 – Suggested County Amended Bikeways – The northernmost of the four east-west facilities shown maintains an existing class III bike route. The third of the four will likely be limited to class III due to limited right-of-way and on-street parking. Since these roadways are shown to be 2-lane non-arterial roadways on the North Natomas Community Plan (and thus collector roadways), class III bike routes are adequate. This is considered a less than significant impact.

- #42 – New Street alignment-Club Center Drive – The section of the project between Northborough Drive and Natomas Boulevard will likely be limited to class III due to limited right-of-way and on-street parking. Since this roadway is shown to be 2-lane non-arterial roadway on the North Natomas Community Plan (and thus a collector roadway), a class III bike route is adequate. This is considered a less than significant impact.

- (unnumbered) – Banfield Drive - Will likely be limited to class III due to limited right-of-way and on-street parking. Since this roadway is shown to be 2-lane non-arterial roadway on the North Natomas Community Plan (and thus a collector roadway), a class III bike route is adequate. This is considered a less than significant impact.

- (unnumbered) – Stemmler Drive - Will likely be limited to class III due to limited right-of-way and on-street parking. Since this roadway is shown to be 2-lane non-arterial roadway on the North Natomas Community Plan (and thus a collector roadway), a class III bike route is adequate. This is considered a less than significant impact.

South Natomas

- #16 – Venture Oaks Way - Will likely be limited to class III due to limited right-of-way and on-street parking. Since the roadway is not shown to be an arterial roadway on the South Natomas Community Plan (and is thus a collector roadway), a class III bike route is adequate. This is considered a less than significant impact.

- #17 – Oak Harbor Drive – Maintains an existing class III bike route. Since the roadway is not shown to be an arterial roadway on the South Natomas Community Plan (and is thus a collector roadway), a class III bike route is adequate. This is considered a less than significant impact.

- #19 – Orchard Lane - Will likely be limited to class III due to limited right-of-way and on-street parking. Since the roadway is not shown to be an arterial roadway on the South Natomas Community Plan (and is thus a collector roadway), a class III bike route is adequate.#20 – Shady Arbor Drive - Will likely be limited to class III due to limited right-of-way and on-street parking. Since the roadway is not shown to be an arterial roadway on the South Natomas Community Plan (and is thus a collector roadway), a class III bike route is adequate. This is considered a less than significant impact.

South Sacramento

Class II bike lanes could likely be provided on all the proposed amended facilities. There is no impact.

Airport/Meadowview

- #3 – 29th Street, Florin Road to Gardendale Road – Will be limited to class III due to existing improvements with on-street parking. Although class II bike lanes could likely be provided with the elimination of on-street parking, since the roadway is classified as a collector roadway within the South Sacramento Community Plan, a class III bike route is adequate. This is considered a less than significant impact.

East City/McKinley Park

- #2 – H Street Crossing – The roadway width through the tunnel beneath the railroad currently does not provide enough width to safely accommodate an unstriped class III bike route. This is considered a significant impact.

- #6 – Camellia/Sandburg/Carlson – Will be limited to class III due to limited right-of-way and on-street parking. Although class II bike lanes could likely be provided with the elimination of on-street parking, a class III bike route is adequate since the roadway is classified as a collector roadway within the South Sacramento Community Plan. This is considered a less than significant impact.

College Greens

Class II bike lanes could likely be provided on all the proposed amended facilities. There is no impact.

Tahoe Park

- #5 – 65th Street/Elvas Avenue - Class II bike lanes would be possible through most of the length of roadway if the center turn lane were provided. Additional study is recommended to establish if additional right-of-way can be obtained to provide class II bike lanes while maintaining the center turn lane.

- #6 – Redding Avenue – Will be limited to class III along significant portions of its length due to limited right-of-way and on-street parking. Although class II bike lanes could likely be provided with the elimination of on-street parking, since the roadway is classified as a collector roadway within the City of Sacramento General Plan, a class III bike route is adequate. This is considered a less than significant impact.

- #8 – Ramona Avenue & #9 – Cucamonga Avenue - Will likely be limited to class III due to limited right-of-way and on-street parking. Although class II bike lanes could likely be provided with the elimination of on-street parking, since the roadways maintain industrial sections (per information provided by the City of Sacramento traffic engineering department), class III bike routes would be adequate. This is considered a less than significant impact.

- #10 – 8th Avenue – The portion of the project east of 65th Street is San Joaquin Street. Will likely be limited to class III due to limited right-of-way and on-street parking. Although class II bike lanes could likely be provided with the elimination of on-street parking, since the roadway is classified as a collector roadway within the City of Sacramento General Plan, a class III bike route is adequate. This is considered a less than significant impact.

AA No impact.

AB See Impact 6.5-3 for PP. Additionally, the elimination of the American River crossings between Natomas and Downtown Sacramento would increase bicycle traffic on the remaining crossings. The existing route passing through Discovery Park, and along Jiboom Street, would experience increased bicycle activity which might not be able to be adequately accommodated by the facilities, portions of which are at present class III facilities, and which would remain class III facilities due to the physical constraints of the roadway. This would not only increase potential vehicle/bicycle conflicts, but also result in undesired mode shifts away form bicycle usage to increased vehicle usage. This is considered a significant impact.

Mitigation **6.5-3 Impacts to Roadways due to Bike Lane Design Conflicts**

PP East City/McKinley Park

#2 – H Street Crossing – Mitigation includes the removal of one westbound lane to accommodate a striped class II bike route. The City of Sacramento is currently evaluating whether both westbound lanes are necessary. The removal of this lane for motorized vehicular travel may shift traffic to another roadway such as J Street. The City of Sacramento shall evaluate the traffic impact that would occur on J Street prior to the development of the H Street bikeway. This segment of bikeway will be constructed only if the resulting traffic study show a less than significant impact on J Street. This segment of bikeway will not be constructed if J Street experiences a significant impact from the traffic shift.

Tahoe Park

Mitigation includes additional study to establish if additional right-of-way can be obtained to provide class II bike lanes while maintaining the center turn lane.

AA No mitigation required.

AB Adequate bicycle access across the American River between Natomas and Downtown Sacramento should be provided. If both proposed amended routes are eliminated, recommended mitigation is that either an alternative direct crossing be established across the river, or that a class I or class II bikeway be provided along as much of the existing route as possible passing through Discovery Park and along Jiboom Street, with the understanding that bicycles would need to utilize the Jiboom Street Bridge along which only a class III bike route could be designated.

Significance after Mitigation

Less-than-Significant

Impact **6.5-4 Local and Regional Transportation Plans and Programs**

PP None of the bikeway amendments would conflict with any of the capitol improvement projects identified within either the MTP for 2025, or the 2003/05 MTIP. Because a majority of the projects identified would be located within North Natomas, the designs for these facilities incorporate bikeway designs.

When the final alignment for the light rail extension from downtown Sacramento to Natomas Town Center is determined, the final design should incorporate elements to provide bike routes with safe crossing points, which minimizes as much as possible the diversion of routes to established crossing points.

Some of the bikeway amendments were not specifically called out as bike routes within the individual community plans. Although by definition any proposed projects which vary from a community plan must either be amended or denied, all of the bikeway amendments would promote specific improved circulation characteristics within the communities through provision of commuter bike routes, and provision of local connections between neighborhoods. This is considered a less than significant impact.

AA No impact.

AB See Impact 6.5-4 for PP.

Mitigation **6.5-4 Local and Regional Transportation Plans and Programs**

PP No mitigation required.

AA No mitigation required.

AB No mitigation required.

Significance after Mitigation

Less-than-Significant

CHAPTER 7.0

CEQA CONSIDERATIONS

CHAPTER 7.0

CEQA CONSIDERATIONS

7.1 GROWTH INDUCING AND INDIRECT IMPACTS

The CEQA *Guidelines* (Section 15126. 2 [d]) require that an EIR evaluate the growth inducing impacts of a proposed action. A growth inducing impact is defined by the CEQA *Guidelines* as an impact that fosters economic or population growth, or the construction of additional housing, either directly or indirectly. Direct growth inducement would result, for example, if a project involved the construction of new housing. Indirect growth inducement would result if a project established substantial new permanent employment opportunities (e.g., new commercial, industrial, or governmental enterprises) or if it would remove obstacles to population growth (e.g., expansion of a waste water treatment plant that could allow more construction in the service area).

Growth inducement may constitute an adverse impact if the growth is not consistent with or accommodated by the land use plans and growth management plans and policies for the area affected. Local land use plans provide development patterns and growth policies that guide orderly urban development supported by adequate urban public services, such as water supply, roadway infrastructure, sewer services, and solid waste services. A project that would induce "disorderly" growth (i.e., conflict with the local land use plans) could directly or indirectly cause additional adverse environmental impacts and other public services impacts. An example of this would be the redesignation of property planned for agricultural uses to urban uses, possibly resulting in the development of services and facilities that encourage the transition of additional land in the vicinity to more intense urban uses. Another example would be the extension of urban services to a non-urban site, thereby encouraging conversion of non-urban lands to urban lands.

CEQA Guidelines (Section 15358(2)) defines indirect effects as effects "...which are caused by the project and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect or secondary effects may include growth-inducing effects and other effects related to induced changed [sic] in the pattern of land use, population density, or growth rate, and related effects on air and water and other natural systems, including ecosystems."

The Bikeway Master Plan proposed amendments would not promote any economic or population growth or the construction of new housing. The proposed amendments are consistent with the City's goal of reducing the impact of automobile trips in areas of growth and would result in more efficient use of the existing system including the promotion of travel alternatives.

One aspect of the Proposed Project that could be considered as growth inducing is the development of on-street bikeways on City streets. The proposed bikeways are planned for City streets that have yet to be built, and the bikeways will result from the City's plan to build the roadways, not vice-versa. Therefore, the proposed on-street bikeway amendments do not result in the construction of new roadways. The Bikeway Master Plan proposed amendments would not be growth inducing.

7.2 SUMMARY OF CUMULATIVE IMPACTS

"Cumulative impacts" refer to the effects of two or more projects that, when combined, are considerable or compound other environmental effects. The California Environmental Quality Act (CEQA) *Guidelines* Section 15130(b) requires that discussions of cumulative impacts reflect the severity of the impacts and their likelihood of occurrence. The CEQA *Guidelines* state that the cumulative impacts discussion does not need to provide as much detail as is provided in the analysis of project-only impacts and should be guided by the standards of practicality and reasonableness. Pursuant to Section 15130(b) of the CEQA *Guidelines*, this DEIR uses projections contained in the adopted general plan and related planning documents, and in prior environmental documents that have been adopted or certified, which described or evaluated regional or area wide conditions contributing to cumulative impacts. Section 15130(b) of the CEQA *Guidelines* allows the use of previously approved land use documents such as general plans, specific plans, and local coastal plans for cumulative impact analysis. This DEIR also uses other methods of analysis depending on the technical area.

7.2.1 CUMULATIVE SETTING

New growth area development may have significant transportation impacts on the existing circulation network. As a prelude to development of these areas, master circulation plans, alternative-transportation modes, and Transportation Systems Management measures are required. The Proposed Project is consistent with the City policy of approving development that promotes efficient growth patterns and public service extensions, and is compatible with adjacent developments. The Proposed Project is also consistent with the City policy to promote an efficient, safe, and balanced transportation system. The City policy objectives promote the implementation of measures that reduce the impact of the automobile and will result in more efficient use of the existing system including the promotion of travel alternatives. The Bikeway Master Plan amendments would have the beneficial effect of reducing traffic congestion and improving air quality.

For the purposes of this EIR, the cumulative setting is based on development anticipated under the City of Sacramento General Plan, with focus on the Airport/ Meadowview Community, the South Sacramento Community, the North Natomas Community, and the South Natomas Community. The East Broadway and East Sacramento Communities are mature residential neighborhoods with little potential for future growth.

AIRPORT/MEADOWVIEW COMMUNITY PLAN AREA

The Airport/Meadowview area is made up largely of single-family residential development with commercial development along Florin Road, Freeport Boulevard and other major thoroughfares. The Airport-Meadowview area land uses consist primarily of low density residential with a high percentage of single-family homes (81%). The area's total residential population is expected to increase almost 30% between the years 1998 and 2022, from 34,118 to 46,928 people. The single family housing market is expected to expand to accommodate the majority of the area's population growth (City of Sac, 2003c).

NORTH NATOMAS COMMUNITY PLAN AREA

North Natomas is the new growth area of the City of Sacramento. North Natomas is designated to be the City's major growth area for new housing and employment opportunities. The North Natomas Community Plan designates 270+ acres for commercial development to meet the neighborhood, commercial, and regional retail needs of North Natomas. One element of the Plan was the development of the thirteen (13) villages that would provide the retail, recreational, employment, and housing needs of residents (City of Sac, 2003d).

SOUTH NATOMAS COMMUNITY PLAN AREA

The South Natomas Community area covers the portion of the City of Sacramento just north of the Central City. The South Natomas area's population is only expected to increase a 1% in the next few years, from 36,706 in 1998 to 37,166 in 2022. Additionally, the Gardenland area east of Northgate Boulevard has been designated for residential infill development. At buildout, the community will have approximately 42,000 people living in 18,000 dwelling units, and approximately 7.7 million square feet of non-residential uses (office, retail). New residential development will primarily occur in West Natomas (west of I-5) and on the Fong Ranch property at the SW corner of Truxel/I-80. Approximately 2.7 million square feet of the 5.7 million square feet of office and business park allowed in the Community Plan have been constructed to date (City of Sac, 2003e).

SOUTH SACRAMENTO COMMUNITY PLAN AREA

The South Sacramento community includes a mix of housing types, including: single and multiple family developments, independent and assisted senior housing developments. South Sacramento contains the largest current and projected population of any community plan area in the city of Sacramento. The population in this area is expected to grow by 22%, from 67,313 residents in 1998 to 85,987 residents in 2022 (City of Sac, 2003f).

7.2.2 CUMULATIVE IMPACTS

The following is a summary of cumulative impacts related to the Proposed Project by environmental topic. See Chapter 6.2 Air Quality, 6.3 Noise, 6.4 Biological Resources and 6.5 Traffic for detailed discussions of impacts and mitigation measures.

AIR QUALITY

Impacts on Bikeway Users

Adoption of the Bikeway Master Plan amendments would result in bikeways in proximity to streets with high volumes of traffic, thereby exposing bicyclists to high CO levels that may exceed state or federal standards, particularly at peak traffic hours. As bicyclists using the bikeways would be inhaling larger volumes of air than normal due to exercise, the physiological effects of CO and ozone would be of greater concern to bicyclists, particularly those with special conditions such as respiratory disorder. The effects of degraded air quality due to CO on bicyclists would be of particular concern along major arterials during peak traffic periods. This impact is considered less-than-significant because the effects of roadside air pollution on bikeway users would depend upon factors, such as duration of exposure that cannot be assessed at this level of analysis.

Impact of Odors from Construction-Related Emissions

Implementation of the overall Bikeway Master Plan amendments would result in the generation of odors from construction-related emissions. Redevelopment envisioned under the Master Plan will not occur simultaneously. Improvements, renovations, and new construction will occur as funds become available. The generation of odors from construction related emissions would depend upon the amount and type of construction planned under each phase.

The use of diesel engines could result in the generation of undesirable odors from the engine exhaust. However, the generation of odors would be temporary, and would not be expected to be of a substantial magnitude.

Because the generation of odors would be temporary and are not expected to be substantial, the impacts would be less-than-significant. Therefore, the Proposed Project will not result in an impact that is cumulatively considerable.

NOISE

Impact of Elevated Traffic Noise Levels along Bikeway System

According to the general traffic noise estimates provided in Table 6.3-2 in Chapter 6.3 Noise, traffic noise levels could exceed 75 dB Ldn at existing or proposed Bikeway System alignments located near unshielded highways or major roadways. Specifically, Bikeway System modifications are proposed adjacent to a short segment of Interstate 5 in the Airport / Meadowview area, and a long segment of Interstate 5 in the North and South Natomas Areas. Without information pertaining to the

precise locations of the proposed Bikeway System modifications near the Interstate, it is not feasible to definitively identify a noise impact for this area. The potential impacts of bikeway users' exposure to traffic noise exceeding 75 dB Ldn along portions of Interstate 5 and Interstate 80will be mitigated with measures specified in Section 6.3.4 of the noise chapter. Recommended mitigation measures would reduce impacts to less-than-significant. Therefore, the Proposed Project will not result in an impact that is cumulatively considerable.

Impact of Construction Noise

Activities associated with construction at the project site will result in elevated noise levels in the immediate area. Activities involved in construction would typically generate maximum noise levels ranging from 85 to 90 dB at a distance of 50 feet. Construction activities would be temporary in nature and would likely occur during normal daytime working hours. The potential impacts of construction activities occurring outside the hours of Monday through Saturday from 7 am to 6 pm, and on Sunday from 9 am to 6 pm to bikeway users will be mitigated with measures specified in Section 6.3.4 of the noise chapter. Recommended mitigation measures would reduce impacts to less-than-significant. Therefore, the Proposed Project will not result in an impact that is cumulatively considerable.

BIOLOGICAL RESOURCES

Special-Status Species

The Proposed Project could potentially result in both direct and indirect impacts to four special-status plant species and 30 special-status animal species outlined in Chapter 6.4. The development of bikeways in these areas could potentially require vegetation clearing and the fill of wetlands for bridge crossings. Indirect impacts could include disturbance from construction related activity and from general bikeway usage in certain sensitive areas. Indirect impacts would stem from disturbance to the aforementioned species during the construction and use of the proposed alignments. The Proposed Project could also result in impacts to nesting birds, which are protected under the Migratory Bird Treaty Act. Construction activity during periods of nesting could lead to interference with normal behavior and/or nest abandonment. The potential impacts to Special-Status Species will be mitigated with measures specified in Section 6.4.4 of Chapter 6. Therefore, the Proposed Project will not result in an impact to Special-Status species that is cumulatively considerable.

Waters of the U.S.

The Proposed Project could potentially result in impacts to Waters of the U.S. These impacts would result from the three proposed bridge crossing of waters under the jurisdiction of the U.S. Army Corps of Engineers. Indirect impacts to waters of the U.S. could result from incidental fill to waters adjacent to proposed bikeways. The construction of several proposed bikeways on existing levees could result in potential impacts to water quality and habitat. The potential impacts to Waters of the U.S. will be mitigated with measures specified in Section 6.4.4 of Chapter 6. Therefore, the Proposed Project will not result in an impact that is cumulatively considerable.

City Street Trees

A "City street tree" is defined as any tree growing on a public street right-of-way. The development of on-street bikeways on existing roads could possibly require road widening, which could result in direct and indirect impacts to City street trees. These impacts could result from construction activities such as curb removal, trenching, and material stockpiling resulting in soil compaction. Any loss of the urban tree canopy in the City would likely result in the following impacts: loss of aesthetic and biological values that trees provide, loss of shade currently shielding residences from summer heat, and loss of nesting habitat for bird species. The potential impacts to City Street Trees will be mitigated with measures specified in Section 6.4.4 of Chapter 6. Therefore, the Proposed Project will not result in an impact that is cumulatively considerable.

City Heritage Trees

The development of off-street bikeways in Discovery Park and Natomas Oaks Park in the community of South Natomas could result in direct and indirect impacts to City heritage trees. These impacts would result from the direct loss of heritage trees through clearing of vegetation for the two proposed bikeways in Discovery Park (Amendments #8 & #9) and indirect impacts to heritage oaks in Natomas Oaks Park (Amendment #14) through soil compaction in root zones. The loss of these trees would likely result in the following impacts: loss of aesthetic and biological values provided by trees and loss of nesting habitat for bird species, including special-status species. The potential impacts to City Heritage Trees will be mitigated with measures specified in Section 6.4.4 of Chapter 6. Therefore, the Proposed Project will not result in an impact that is cumulatively considerable.

TRAFFIC

The Proposed Project would potentially result in the following cumulative impacts to traffic and circulation. Please see section 6.5 Traffic and Circulation for a detailed discussion of traffic impacts and Mitigation Measures.

South Natomas

The following South Natomas locations were identified as limited to Class III due to right-of-way issues: 1) Venture Oaks Way, 2) Oak Harbor Drive, 3) Orchard Lane, and 4) Shady Arbor Drive. Since these roadways are not shown to be arterial roadways on the South Natomas Community Plan (and are, thus, collector roadways), a class III bike route is adequate. The Proposed Project will not result in an impact that is cumulatively considerable.

North Natomas

The following North Natomas locations were identified as limited to Class III due to right-of-way issues: 1) Street Replaces off-street bikeway (Allegheny), 2) New Streets with bikeways (Allegheny), 3) Suggested County Amended Bikeways, 4) New Street alignment-Club Center Drive

5) Banfield Drive and 6) Stemmler Drive. Since these roadways are not shown to be arterial roadways on the North Natomas Community Plan (and are, thus, collector roadways), a class III bike route is adequate. The Proposed Project will not result in an impact that is cumulatively considerable.

Airport/Meadowview

The 29th, Florin Road to Gardendale Road location in Airport/Meadowview would be limited to Class IIII due to existing improvements with on-street parking. Since the roadway is not shown to be an arterial roadway on the Airport/Meadowview Community Plan (and is, thus, a collector roadway), a class III bike route is adequate. The Proposed Project will not result in an impact that is cumulatively considerable.

Tahoe Park

The following Tahoe Park locations were identified as being limited to Class III bikeways due to right-of-way issues: 1) Redding Avenue, 2) Ramona Avenue & Cucamonga Avenue and 3) 8th Avenue. Class II bike lanes could likely be provided with the elimination of on-street parking. Since the roadway is classified as a collector roadway within the City of Sacramento General Plan, a class III bike route is adequate. The Proposed Project will not result in an impact that is cumulatively considerable.

7.3 Significant Unavoidable Adverse Impacts

The are no significant unavoidable adverse impacts related to the Proposed Project.

CHAPTER 8.0

REPORT PREPARATION

CHAPTER 8.0

REPORT PREPARATION

8.1 CITY OF SACRAMENTO

Dana Allen, Environmental Project Manager, Environmental Planning Services

Ed Cox, Project Manager, Public Works Department

Suzan Tobin, Engineering Technician II, Public Works Department

8.2 CONSULTANTS

Analytical Environmental Services

Project Manager:	Joe Broadhead
Technical Staff:	Susan Engelke Paul Garcia Dana Hirschberg John Howe Shelley McGinnis Larry Wymer

Bollard and Brennan

Noise Consultant:	Paul Bollard

CCS, Planning and Engineering, Inc.

Air Quality Consultant:	Wayne Shijo

CHAPTER 9.0

ACRONYMS

CHAPTER 9.0

ACRONYMS

9.0 ACRONYMS USED IN THE EIR

AA	Alternative A
AASHTO	American Association of State Highway and Transportation Officials
AB	Alternative B
AES	Analytical Environmental Services
CARB	California Air Resources Board
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	Carbon Monoxide
CSS	Combined Sewer System
dB	Decibel
dBA	A-weighted decibels
DEIR	Draft Environmental Impact Report
Draft EIR	Draft Environmental Impact Report
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GDP	General Development Plan
ISA	International Society of Arboriculture
L_{dn}	Day-night average sound level
L_{eq}	Energy-averaged sound level
L_{max}	Maximum noise level
L_{50}	The A-weighted noise levels that are exceeded 50% of the time during the measurement period.
LOS	Level of Service
LOMR	Letter of Map Revision
LTS	Less Than Significant
MMRP	Mitigation Monitoring and Reporting Program
MPO	Metropolitan Planning Organization
MTP	Metropolitan Transportation Plan
MTIP	Metropolitan Transportation Improvement Plan

NBHCB	Natomas Basin Habit Conservation Plan
NI	No Impact
NO_2	Nitrogen Dioxide
NO_x	Nitrogen Oxides
NOP	Notice of Preparation
OSHA	Occupational Health and Safety Administration
PM_{10}	Particulate Matter (10 microns)
$PM_{2.5}$	Particulate Matter (2.5 microns)
PP	Proposed Project
PPD	Pounds Per Day
PPM	parts per million
PPV	Peak Particle Velocity
ROG	Reactive Organic Gases
S	Significant
SACOG	Sacramento Area Council of Governments
SIP	State Implementation Plan
SMAQMD	Sacramento Metropolitan Air Quality Management District
SU	Significant Unavoidable
UCD-ITS	University of California Davis Institute of Transportation Studies
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VC	Vehicle Code
VOC	Volatile Organic Compounds

CHAPTER 10.0

REFERENCES

CHAPTER 10.0
REFERENCES

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APPENDICES

APPENDIX A

INITIAL STUDY

CITY OF SACRAMENTO

Bikeway Master Plan
Initial Study

December 2003

Lead Agency:

Planning and Building Department
1231 I Street, Suite 300
Sacramento, CA 95814

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INTRODUCTION

SECTION 1.0
INTRODUCTION

This Initial Study has been required and prepared by the City's Planning and Building Department Office of Environmental Affairs, 1231 I Street, Room 300, Sacramento, CA 95814, pursuant to Title 14, Section 15063 of the California Code of Regulations; the Sacramento Local Environmental Regulations (Resolution 91-892) adopted by the City of Sacramento, and the Sacramento City Code, Title 63.

This Initial Study is organized into the following sections:

Section 2.0 – Background: Provides summary background information about the project name, location, sponsor, and when the Initial Study was completed.

Section 3.0 - Project Description: Includes a detailed description of the proposed project.

Section 4.0 - Environmental Checklist and Discussion: Contains the Environmental Checklist form together with a discussion of the environmental issues.

Section 5.0 - Environmental Factors Potentially Affected: Identifies which environmental factors were determined to have either a "Potentially Significant Impact" or "Potentially Significant Impacts Unless Mitigated", as indicated in the Environmental Checklist.

Section 6.0 – Determination: Identifies the determination of whether impacts associated with development of the Proposed project are significant, and what, if any, additional environmental documentation may be required. A list of mitigation measures required for the proposed project is also included.

Section 7.0 - References

Section 8.0 - Bibliography

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SECTION 2.0

BACKGROUND

SECTION 2.0
BACKGROUND

PROJECT NAME:

Bikeway Master Plan Amendments

COMMUNITY PLAN AREA/PROJECT LOCATION:

The Proposed Project also includes the removal of several proposed alignments within the North Natomas Community Plan area. In addition, new and/or modified on- and off-street alignments are proposed for the following communities:

1. Airport/Meadowview,
2. College Greens,
3. East City/McKinley Park,
4. North Natomas,
5. South Natomas,
6. South Sacramento, and
7. Tahoe Park.

PROJECT SPONSOR:

Ed Cox, Project Manager
City of Sacramento Department of Public Works
1231 I Street, Room 300
Sacramento, CA 95814
(916) 808-8434

CONTACT PERSON:

Dana Allen, Environmental Project
Manger City of Sacramento
Planning and Building Department
Environmental Planning Services
1231 I Street, Suite 300
Sacramento, CA 95814
(916) 808-2857
(916) 808-7185 FAX

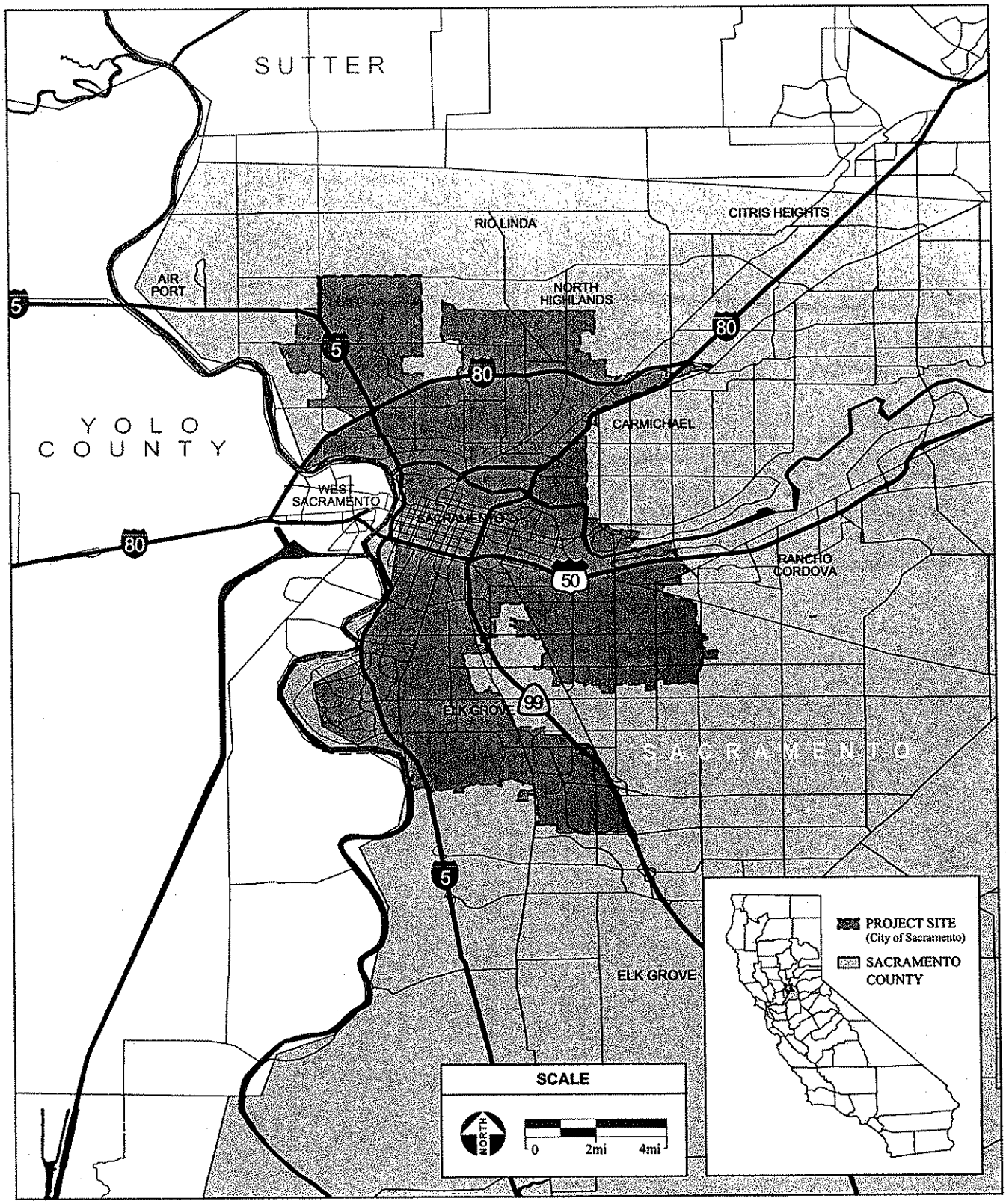
Date Initial Study Completed: December 2003

2.1 INTRODUCTION

The City of Sacramento's Environmental Planning Services is the lead agency for the preparation of an Initial Study for the Bikeway Master Plan Amendments (Proposed Project). The Proposed Project consists of amendments to the on- and off- street bikeways throughout the City of Sacramento **(Figure 1)**.

New and/or modified on- and off-street alignments are proposed for the following communities: Airport/Meadowview, College Greens, East City/McKinley Park, North Natomas, South Natomas, South Sacramento, and Tahoe Park.

This Initial Study has been required and prepared by the City's Planning and Building Department pursuant to Title 14, Section 15063 of the California Code of Regulations; the Sacramento Local Environmental Regulations (Resolution 91-892) adopted by the City of Sacramento, and the Sacramento City Code, Title 63.



SOURCE: ESRI Data, 2001 ; AES, 2003

Figure 1
Regional Location Map

SECTION 3.0

PROJECT DESCRIPTION

SECTION 3.0

PROJECT DESCRIPTION

3.1 PROJECT LOCATION

The Proposed Project consists of amendments to the on- and off- street bikeways throughout the City of Sacramento. New and/or modified on- and off-street alignments are proposed for the following communities: Airport/Meadowview, College Greens, East City/McKinley Park, North Natomas, South Natomas, South Sacramento, and Tahoe Park.

3.2 PROPOSED PROJECT CHARACTERISTICS

The Proposed Project includes bikeway alignment amendments to the existing 2010 Sacramento City/County Bikeway Master Plan. The current amendment includes the placement of new alignments throughout the various communities of the City. The Proposed Project also includes the removal of several proposed alignments within the North Natomas Community Plan area. New and/or modified on- and off-street alignments are proposed for the following communities:

1. Airport/Meadowview,
2. College Greens,
3. East City /McKinley Park,
4. North Natomas,
5. South Natomas,
6. South Sacramento, and
7. Tahoe Park.

The existing policy framework relating to the establishment, use and maintenance of bikeways established in the 2010 Bikeway Master Plan and other City planning documents will continue with little or no change.

The Proposed Project includes the establishment of new on-and off-street bikeway alignments that builds-on and modifies the existing established system, thereby allowing the City to more fully attain existing bikeway goals and policies. The new or modified alignments may involve crossings of canals, roadways, or other obstacles resulting in potential effects associated with sensitive environmental features (e.g., biological, cultural, traffic, etc.). The alignments proposed are to be considered at the program level. Further refinement of the alignments will occur in the future as funding for individual segments becomes available. As such, current environmental review will be done at the program level, with follow-up detailed environmental review conducted in the future.

3.3 PROJECT SPONSOR

The project applicant is listed below:

Ed Cox, Project Manager
City of Sacramento
Department of Public Works
1231 I Street, Room 300
Sacramento, CA 95814
(916) 808-8434

3.4 REGULATORY REQUIREMENTS, PERMITS, AND APPROVALS

This Initial Study will be used for the following direct and indirect actions regarding the Proposed Project.

3.4.1 CITY OF SACRAMENTO

The City of Sacramento will be the approval authority for the Proposed Project. The City will utilize the information contained in this Initial Study during the decision-making process. As part of approval, the City will be required to take the following actions:

Certification of the Environmental Impact Report (EIR) for the Proposed Project under the requirements of the California Environmental Quality Act (CEQA), as amended.

Approval of the proposed bikeway amendments to the city's portion of the City/County Bikeway Master Plan.

SECTION 4.0

ENVIRONMENTAL CHECKLIST AND DISCUSSION

SECTION 4.0
ENVIRONMENTAL CHECKLIST AND DISCUSSION

4.1 LAND USE

Question: Would the proposal?		*Potentially Significant Impact*	*Potentially Significant Unless Mitigated*	*Less than Significant Impact*
a)	Physically divide an established community?	☐	☐	☒
b)	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☒	☐
c)	Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☒

LAND USE DISCUSSION

4.1.1 SETTING

EXISTING LAND USES

The Proposed Project encompasses the following community plan areas: Airport/Meadowview, East Broadway, East Sacramento, North Natomas, South Natomas, and South Sacramento.

Airport-Meadowview

The Airport-Meadowview area is made up largely of single-family residential development with commercial development along Florin Road, Freeport Boulevard and other major thoroughfares. The community is comprised of six main neighborhoods: Freeport Manor, Airport, Meadowview, Golf Course Terrace, Woodbine, and Brentwood. The Airport-Meadowview Community Plan area is bounded on the north by 35th Avenue and the drainage canal located north of Executive

Airport, on the east by the Union Pacific Railroad tracks, on the south by the City limit line, and on the west by the Southern Pacific Railroad tracks (City of Sacramento, 2003).

East Sacramento: College Greens and McKinley Park

The East Sacramento community is one of the older, more established neighborhoods in the City of Sacramento. The area contains several parks, adjoins the American River Parkway, and includes California State University, Sacramento. Commercial space within the area tends to be small scale in the western portion of the area, and larger scale commercial is present in the southeastern portion of the area on Folsom Boulevard. The East Sacramento Community Plan area is bounded by the American River to the north, by Watt Avenue on the east, by the Light Rail right-of-way and Folsom Boulevard to the south, and by Alhambra Boulevard to the west.

North Natomas

North Natomas is the new growth area of the City of Sacramento. Existing development in North Natomas includes the Natomas Marketplace regional shopping center, Arco Arena, Sacramento Coca-Cola Bottling Company warehouse and bottling facility, Raley's Distribution Center, Fry's Electronics, and a 108,000 square foot office building along Del Paso Road. A variety of residential uses are located in the area. Witter Ranch Historic Farm, Fisherman's Lake, Ueda Parkway, and a future 200 acre Regional Park are the highlights of the community. The North Natomas Community area covers the portion of the City of Sacramento north of the south Natomas Area. North Natomas is designated to be the City's major growth area for new housing and employment opportunities. The North Natomas Community Plan area is bounded by Elkhorn Boulevard to the north, the Natomas East Main Drainage Canal to the east, Interstate-80 to the south, and the City limit line to the west. The area within the City boundary consists of 7,388 acres of primarily undeveloped land (City of Sacramento, 2003).

South Natomas

The South Natomas Community area covers the portion of the City of Sacramento just north of the Central City. The South Natomas Community Plan area is bounded by the Natomas East Main Drainage Canal to the east, the American River and Sacramento River to the south, and Interstate-80 to the west. The South Natomas area's population is only expected to increase a 1 % in the next few years, from 36,706 in 1998 to 37,166 in 2022. The remaining vacant area in South Natomas can be found primarily west of the Natomas Main Drainage Canal, which is within the Willowcreek Assessment District currently being formed to finance basic infrastructure such as roads, sewer, and drainage. Additionally, the Gardenland area east of Northgate Boulevard has been designated for residential infill development (City of Sacramento, 2003).

South Sacramento

The South Sacramento community includes a mix of housing types, including: single and multiple family developments, independent and assisted senior housing developments. Large commercial shopping developments including: Florin Mall and Southgate Center are located in the northern portion of the area. In addition, the community is served by two hospitals, several medical facilities, and the Cosumnes River Community College. The South Sacramento Community Plan area is split into two sections, divided by an unincorporated portion of

Sacramento County. In general, the plan area is bounded on the north by Fruitridge Road, on the east by Elk Grove Florin Road (South Watt Avenue), on the south by Sheldon Road, and on the west by the Union Pacific Railroad. The City portion of the community consists of the northeast portion north of Florin Road and a portion of the area west of Highway 99 (City of Sacramento, 2003).

East Broadway: Tahoe Park

The East Broadway Community Area is defined by its maturing residential neighborhoods, including Elmhurst, Med Center, Oak Park, Fairgrounds, Tahoe Park, Colonial Heights, Tallac Village, and Colonial Village neighborhoods. These neighborhoods are desirable in part because oftheir small, affordable homes, tree-lined grid pattern streets, and close proximity to Downtown. Historic elms line the Elmhurst section of the T Street Parkway, and community and business-led efforts are currently underway to preserve the community's older storefronts and landmark buildings on Broadway and Stockton Boulevard. This area is bounded by the Southern Pacific Railroad and Jackson Highway to the north, the City limit to the east, Fruitridge Road to the south, and Franklin Boulevard and a Business Loop 80 to the west (City of Sacramento, 2003).

4.1.2 STANDARDS OF SIGNIFICANCE

For the purpose of this analysis, an impact is considered significant if the project would substantially alter approved land uses, or if the Proposed Project would be inconsistent with the policies of the City of SacramentoaGeneral Plan and the Zoning Ordinance.

4.1.3 IMPACT ANALYSIS

QUESTION A

The Proposed Project would consist of the construction of on-and off-street bikeways. On-street bikeways will be sited along existing circulation infrastructure. Off-street bikeways will not divide established communities; rather they will be designed to connect existing communities. Impacts from the Proposed Project on this issue are considered less than significant.

QUESTION B

The Proposed Project would result in new or modified on- and off-street bikeways. On street bike lanes and routes are located throughout the City on public streets of various types including local, and arterial streets. These streets front a variety of land uses typical to both urban and rural development including industrial, retail, and wholesale commercial, public and private offices, single and multi-family residences, schools, parks, and other public facilities. Few, if any, land use conflicts can be anticipated to result from the addition of bike routes or lanes to existing or planned streets because bike routes or lanes would be located on rights-of-way as part of the existing circulation infrastructure. Therefore, this impact is considered less-than-significant.

Off-street bike paths follow natural geographic or man-made features that are primarily linear such as railroad rights-of-way, canal banks, utility easements, and creek or river corridors. These kinds of features exist in both developed and undeveloped areas throughout the City of Sacramento and can be effective in providing new recreational opportunities and alternative commute modes. The majority of the off-street bike paths are sited through areas that are more scenic and are typically safer than on-street bike routes due to lack of automobile traffic. Compatibility issues with residential, parks/recreational, agricultural, and commerciallindustrial land uses surrounding the project site could arise. Significant impacts to the North Laguna Creek Wildlife area could also occur. These are seen as potentially significant impacts and will be analyzed further within the Land Use and Biological Resources section of the EIR.

QUESTION C

The segments of the Proposed Project are in the vicinity of the Natomas Basin Habit Conservation Plan Area, however development of Proposed Project does not come in conflict with the goals and polices outlined with said conservation plan. Impacts from the Proposed Project on this issue are considered less than significant and will not be further discussed in the EIR.

4.1.4 FINDINGS

Potentially significant impacts that have been identified above will be discussed in greater detail within the applicable sections of the EIR.

4.2 POPULATION AND HOUSING

Question: Would the proposal?	*Potentially Significant Impact*	*Potentially Significant Unless Mitigated*	*Less than Significant Impact*
a) Induce substantial growth in an area either directly or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)?	☐	☐	☒
b) Displace existing housing, especially affordable housing?	☐	☐	☒

POPULATION AND HOUSING DISCUSSION

Section 15131 of the California Environmental Quality Act (CEQA) *Guidelines* states that the economic or social effects of a project shall not be treated as a significant effect on the environment. According to the CEQA *Guidelines*, economic or social effects of a project may be used to determine the significance of a physical change caused by the project.

This environmental document does not treat population/housing as an environmental impact, but rather as a social-economic impact. If there are clear secondary impacts created by a population/housing increase generated by the project, those secondary impacts will be addressed in each affected area (e.g., transportation, air quality, etc.).

4.2.1 SETTING

The City of Sacramento is divided into eleven geographic areas, known as Community Plan Areas. These Community Plan Areas include: Airport-Meadowview, Arden-Arcade, Central City, East Broadway, East Sacramento, Land Park, North Natomas, North Sacramento, Pocket, South Natomas, and South Sacramento.

The City of Sacramento's growth rate over the past 18 years has averaged 1.93% annually, with an overall growth rate of29.85% from 1975 to 1998 (City of Sacramento, 2003). Table 1 shows the population of City of Sacramento from 1975 to 1998. Populations are broken down by community plan area.

TABLE 1
CITY OF SACRAMENTO POPULATION BY COMMUNITY PLAN AREA, 1975-2022

Community Plan Area	1975 Pop.	1980 Pop.	1985 Pop.	1990 Pop.	1995 Pop.	1998 Pop.	2022 Pop.
Airport-Meadowview	30,674	30,486	32,401	32,684	33,484	34,118	46,928
Arden-Arcade	8,375	10,248	11,018	10,680	10,966	11,171	11,652
Central City	29,125	28,956	30,697	33,040	33,274	33,799	49,369
East Broadway	39,115	37,845	39,812	45,476	44,780	45,539	46,335
East Sacramento	34,085	34,644	35,833	33,111	33,221	33,772	34,211
Land Park	34,861	33,839	34,912	33,128	33,495	34,141	35,530
North Natomas	476	643	690	541	542	557	57,371
North Sacramento	33,823	34,560	34,108	44,823	48,449	49,491	56,786
Pocket	20,259	23,716	32,798	42,884	45,079	46,453	48,566
South Natomas	8,412	10,418	17,762	34,587	36,097	36,706	37,166
South Sacramento	21,534	28,721	39,992	56,752	64,687	67,313	85,987
Total City Population	260,739	274,076	310,023	367,706	384,074	393,060	509,901

SOURCE: City of Sacramento Planning and Building Department, 2003

The Proposed Project encompasses the following community plan areas: Airport/Meadowview, East Broadway, East Sacramento, North Natomas, South Natomas, and South Sacramento.

4.2.2 STANDARDS OF SIGNIFICANCE.

The development of the Proposed Project is not expected to induce substantial growth in the area nor displace existing affordable housing in the vicinity. Amendments to the Bikeway Master Plan are not expected to foster economic or population growth, or promote the construction of new housing. The Bikeway amendments are merely an enhancement to the existing City of Sacramento bikeway network. It does not remove any obstacles to growth nor does the Proposed Project introduce infrastructure such as sewers or water utilities, or require the construction of new facilities that could likewise induce growth in the area. Impacts from the Proposed Project on this issue are considered less than significant and will not be further discussed in the EIR.

4.2.3 IMPACT ANALYSIS

QUESTIONS A AND B

The development of the Proposed Project is not expected to induce substantial growth in the area nor displace existing affordable housing in the vicinity. Impacts from the Proposed Project on this issue are considered less than significant and will not be further discussed in the EIR.

4.2.4 FINDINGS

The Proposed Project would result in less-than-significant impacts with regards to the Population and Housing issue.

4.3 SEISMICITY, SOILS, AND GEOLOGY

Question: Would the proposal result in or expose people to potential impacts involving?	*Potentially Significant Impact*	*Potentially Significant Unless Mitigated*	*Less than Significant Impact*
a) Seismic hazards	☐	☐	☒
b) Erosion, changes in topography, or unstable soil conditions?	☐	☐	☒
c) Subsidence of land (groundwater pumping or de-watering)?	☐	☐	☒
d) Unique geologic or physical features?	☐	☐	☒

SEISMICITY, SOILS, AND GEOLOGY DISCUSSION

4.3.1 SETTING

SEISMICITY

Development within the Sacramento area is subject to potential damage from earthquake ground shaking at a maximum intensity of VII of the modified Mercali Scale. The City of Sacramento is within Zone 3 of the Uniform Building Code's (UBe) Seismic Risk Map of the United States (SGPU EIR, T -16). Although no active or potentially active faults are known to occur near the project site, several regional faults could generate seismic activity that could affect the project site. A major earthquake on any of the regional faults could cause strong ground shaking at the project site. A secondary seismic hazard that potentially could affect the site is known as liquefaction. Liquefaction is the transformation of a granular material from a solid state to a liquid state. This occurs because of increased pore-water pressures or pore-air pressures due to an earthquake. The weight of structures on such liquefied material can induce structural damage. Liquefaction most commonly occurs in low-lying areas where unconsolidated, saturated, clayfree sands and silts predominate, such as the project site.

Excavation and grading activities are regulated by Title 8 of the California Code of Regulations and Occupational Safety and Health Act (OSHA). These regulations require that excavations must be shored or otherwise stabilized to preclude slope failure during construction. This requirement is incorporated in the UBC (Section A33 - Excavation and Grading), which also requires shoring of trenches or other structural integrity measures be implemented, as well as erosion control measures. These regulations will apply to the excavation necessary to construct the subterranean parking under the proposed office buildings.

Cities in California are required to consider seismic safety as part of the General Plan Safety Element. The City of Sacramento has adopted policies to address seismic hazards as part of the General Plan, Health and Safety Element with the goal of protecting lives and property from unacceptable risk due to seismic and geologic activity or unstable soil conditions to the maximum extent feasible. The Sacramento City Code and the UBC require that soils reports and geologic investigations for determining liquefaction, expansive soils and subsidence problems be prepared for multiple story buildings. Current construction standards in Sacramento require that all new structures be built to withstand seismic activity designated for Zone 3 of the UBC Seismic Zone Map (SGPU, 8-13).

In addition, issues related to fault rupture seismic ground shaking, and seismically induced ground failures are addressed in the City's adopted *Standard Specifications for Public Works Construction,* 1989 which requires construction contractors to build to City standards related to structural integrity, thus ensuring that erosion and unstable soil conditions do not occur as a result of construction. This document contains provisions that require contractors to be responsible for damage caused during construction and to be responsible for the repair of such damages (e.g., settling of adjacent land and structures). Individual components used in the construction of the

project would be constructed to industry-provided design specifications and requirements, including the American Society for Testing and Materials (ASTM) standards. These existing regulations and requirements are enforced through the City's building review and inspection process and will ensure that the Proposed Project will not be subjected to, or caused significant seismic impacts.

SOILS AND GEOLOGY

Terrain in the Central City features very little topographic relief. The potential for slope instability in this area is minimal due to the flat topography (0-3% slope). Much of the City area has received fill materials. These fill materials consist of natural gravels, sand, silt and clay, as well as manmade construction materials such as brick, concrete, and refuse. The erosion hazard is slight. No unique geologic features exist in the area (SGPU EIR, T-16). The natural alluvial deposits beneath the fill extended to a depth of 280 feet below grade.

The City Building Division requires a site-specific soil investigation (including detailed analysis of surface and subsurface conditions) be conducted for individual structures. The information from this soil investigation is then incorporated into the site-specific engineering and design for the structure. Demonstration of satisfactory compliance with the recommendations of the soil investigation is required prior to issuance of building permits.

All grading activities associated with site development are required to comply with the City's Grading, Erosion, and Sediment Control Ordinance (Ordinance #93-068). This ordinance requires the applicant to prepare erosion, sediment and pollution control plans both during and after construction of a project, and preliminary and final grading plans. These plans will identify Best Management Practices (BMPs) to be implemented in order to address sediment and erosion control. The BMPs are reviewed by the City's Department of Utilities, Engineering Services Division. Components of the BMPs include:

- Maintanence of structures and roads
- Flood control management
- Comprehensive development plans
- Erosion control ordinances
- Inspection and enforcement procedures
- Education programs for toxic material and oil control
- Reduction of pesticide use

Construction of the Proposed Project would consist of modifying existing circulation infrastructure to accommodate on-street bikeways and limited grading and paving of off-street bikeways.

The City of Sacramento will require a site-specific soils/geology investigation and associated design for the project in compliance with the standards and requirements of Title 8, OSHA, the Uniform Building Code, the City's Standard Specifications for Public Works Construction, the Grading, Erosion, and Sediment Control Ordinance, and ASTM standards. These existing

regulations and requirements ensure that the Proposed Project will not be subjected to, or cause significant geologic impacts. (Issues related to de-watering *of* the site are discussed in the following section, Water).

4.3.2 STANDARDS OF SIGNIFICANCE

For the purposes of this analysis, an impact is considered significant if it allows a project to be built that will either introduce geologic, soils, or seismic hazards by allowing the construction of the project on such a site without protection against those hazards.

4.3.3 IMPACT ANALYSIS

Would the proposal result in or expose people to potential impacts involving:

QUESTION A

As stated above, no known active faults occur within or adjacent to the City of Sacramento. Therefore, impacts from the Proposed Project on this issue are considered less than significant and will not be further discussed in the EIR.

QUESTION B

The Proposed Project will require minimal grading or changes in topography. Off-street bike paths will follow natural geographic or man-made features. Therefore, the change in topography is considered de minimis. The City's grading ordinance (Chapter 15.88 of Sacramento City Code) specifies construction standards to minimize erosion and run-off. The potential for erosion and/or unstable soil conditions will be minimized through the provisions *of* the UBC and requirements of the grading ordinance. Therefore, impacts from the Proposed Project *on* this issue are considered less than significant and will not be further discussed in the EIR.

QUESTION C

Groundwater pumping or de-watering activities will not occur during project construction. Therefore, impacts from the Proposed Project on subsidence of land are considered less than significant and will not be further discussed in the EIR.

QUESTION D

On-street bike paths will be sited on existing circulation infrastructure and have no impact on unique geologic and physical features. Off-street bike paths will follow natural geographic or man-made features, and not disrupt recognized unique geologic and physical features. Therefore, impacts from the Proposed Project on this issue are considered less than significant and will not be further discussed in the EIR.

4.3.4 FINDINGS

The Proposed Project would result in a potentially significant impact with regards to seismicity, soils and geology and will be discussed further in the EIR.

4.4 WATER

Question: Would the proposal result in or expose people to potential impacts involving?		*Potentially Significant Impact*	*Potentially Significant Unless Mitigated*	*Less than Significant Impact*
a)	Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff?	☐	☐	☒
b)	Exposure of people or property to water related hazards such as flooding?	☐	☐	☒
c)	Discharge into surface waters or other alteration of surface water quality (e.g., temperature, dissolved oxygen or turbidity)?	☐	☐	☒
d)	Changes in currents, or the course or direction of water movements?	☐	☐	☒
e)	Change in the quantity of groundwaters, either through direct additions or withdrawal, or through interception of an aquifer by cuts or excavations or through substantial loss of groundwater recharge capability?	☐	☐	☒
f)	Altered direction or rate of flow of groundwater?	☐	☐	☒
g)	Impacts to groundwater quality?	☐	☐	☒

WATER DISCUSSION

4.4.1 SETTING

The Sacramento Valley is drained by two major rivers, the Sacramento River and the American River. The City of Sacramento's storm water drainage system consists of a network of natural creeks, channels, canals, levees, subsurface drains, and pumping stations that ultimately drain into the Sacramento and American Rivers. Water quality in the Sacramento and American Rivers is good to excellent and both rivers provide surface water supplies for municipal uses. The Proposed

new or modified alignments may involve crossings of canals, roadways, or other obstacles resulting in potential effects associated with water resources.

CONSTRUCTION AND URBAN RUNOFF EFFECT TO THE SURFACE WATER QUALITY

An increase in impervious surfaces can result in increased levels of water run-off from the site, possibly contributing to off-site erosion from altered drainage patterns. Grading and construction activities can result in on-site erosion leading to increased sedimentation of streams. Spills can result in transportation of pollutants from construction sites to nearby surface water bodies. The cumulative effects of urban development and use can cause impacts to surface water and groundwater quality. Varied concentrations of pollutants are carried in urban runoff. Precipitation in the area averages 18 inches, virtually all of it occurring during the rainy season between November and April. The pollutant concentration of urban runoff is typically highest during the first major rainfall event after the dry season. This event is known as the "first flush." The "first flush" can carry a variety of accumulated pollutants including, oil, grease, heavy metals, sediment, pesticide residues, and fecal coliform bacteria. These pollutants come from roadways, parking lots, rooftops, construction sites, and yard areas.

REGULATORY CONTEXT

The following statutes, regulations, ordinances and guidelines related to water pollution and flood control requirements are applicable to the Proposed Project:

Federal Water Pollution Control Act is commonly referred to as the Clean Water Act (CWA). The CWA established pollutant discharge standards and limitations, a permit and licensing system to enforce these standards, federal funding to state and local governments to construct treatment works, and research into the effects of water pollution and pollution control techniques. The U.S. Environmental Protection Agency (EPA) has authority to implement the CWA but can delegate aspects of the CWA. For example, California implements aspects of the NPDES program. California Porter-Cologne Water Quality Control Act is a comprehensive statewide system of water pollution control operated by the State Water Resources Control Board (SWRCB), nine Regional Quality Control Boards (RWQCB), and local governments.

National Pollutant Discharge Elimination System Permit (NPDES) regulates municipal and industrial storm water discharges under the requirements of the CWA. California is authorized to implement a state industrial storm water discharge permitting program, with the SWRCB and RWQCBs as the permitting agencies.

The City of Sacramento Grading, Erosion, and Sediment Control Ordinance regulates all grading activities associated with site development within the City. This ordinance requires project applicants/construction contractors to prepare erosion, sediment and pollution control plans for both during an after construction of a Proposed Project, and preliminary and final grading plans. Development sites are to be graded such that new topography makes a smooth transition to the existing adjacent grade. Dust and soil erosion control measures must be performed by the developer before, during, and after the construction phase of development. Measures that

minimize the impact upon water quality from construction include dust control, revegetate or covering exposed soil, preventing construction vehicles from tracking mud into adjacent roadways, and providing interim drainage.

The applicant must comply with the requirements of the NPDES and the City's Grading Erosion and Sediment Control Ordinance. These regulations are designed to prevent pollution of surface water from urban runoff.

EFFECTS FROM FLOODING

Before the 1900's, flooding from winter storms caused both the Sacramento and American Rivers to overtop their banks and flooding occurred regularly in the Sacramento Valley. An extensive system of manmade levees and floodways were constructed to protect the City from flooding. Before 1986, the Sacramento levee systems and Folsom Reservoir were believed to provide flood protection against the 100-year storm event. A 100-year flood is a flood so large that there is statistically a one percent chance of its being exceeded in any given year. The storm of February 1986 produced record flows in both the Sacramento and American River drainages. The levees contained the flow but there was encroachment into the design integrity of the levee. After the 1986 storms, the U.S. Army Corps of Engineers (Corps) reevaluated the Sacramento area levees, Folsom Reservoir, and existing hydrologic conditions and data. The Corps determined that Sacramento's flood control system did not provide adequate protection for a 100-year storm event. At the request of the Federal Emergency Management Agency (FEMA), the Corps prepared new preliminary Flood Insurance Rate Maps (FIRM) showing that much of Sacramento is in the 100-year floodplain with known base flood evaluations. In response to this information from the Corps and FEMA, in 1990 the City adopted the *Land Use Planning Policy Within the 100-Year Floodplain* (Flood Policy) and certified the EIR. The Flood Policy EIR addresses the significant flood-related risks to people and property created by new development in the 100-year floodplain in the city.

In 1993 the City completed the Sacramento Urban Levee Reconstruction Project. This project strengthened and stabilized approximately 33 miles of the east levee of the Sacramento River from the town of Freeport to the town of Verona. These improvements to the Sacramento River levees, in combination with re-operation of Folsom Dam, were thought to provide 100-year flood protection. However, storm events occurring in subsequent years resulted in the high flows on the American and Sacramento Rivers that caused the Corps to again determine that the flood control system did not yet provide 100-year protection. Several measures before Congress including the Auburn dam, modifications to Folsom dam, and American River levee improvements were not yet adopted or funded.

As a result, in 1998 the Corps placed large areas of the City south of the American River and smaller parts of the City north of the river (east of the Natomas East Main Drainage Canal) within the AR flood zone. The AR zone is intended for communities where a certified 100-year flood protection system has been decertified due to updated hydrologic or other data. The AR zone allowed development to continue with some restriction while progress was being made toward restoring a 100-year level of protection. The AR flood zone regulations required that any new

commercial development be constructed with the lowest floor, including basement, at or above the base flood evaluation, or 3 feet above the highest adjacent grade, whichever is lower. Commercial projects have the option of flood proofing in lieu of the evaluation requirements.

In 1999, Congress authorized further improvements to the flood control system, including:

> Enlarging Folsom Dam's existing river outlets and adding additional outlets to enhance the dam's ability to release water during the early part of a storm.
>
> Raising levees along the north and south banks of the American River and building a closure structure and pumping facility at the mouth of Mayhew Drain to ensure safe containment of emergency releases from Folsom Dam.

Other projects along the American and Sacramento Rivers and various projects around the Natomas Basin and along lover Dry and Arcade Creeks are also being constructed, financed by existing assessment districts. These projects will provide 100-year flood protection for the City. On May 22nd (year-2000) the Corps adopted a Letter of Map Revision (LOMR), which placed the City back into the A-99 flood zone and rescinded the AR flood zone (and associated building and elevation restrictions). The Proposed Project is located within zones A99 and X as designated by the Federal Emergency Management Agency (FEMA) *Flood Insurance Rate Map* (FIRM) City of Sacramento California Sacramento County, Community Panel Number 060266 0025 F, Map Revised July 6, 1998 and Letter of Map Revision May 22, 2000 (Dorfer, 2001).

> Zone A99 – To be protected from 100-year flood by Federal flood protection system under construction; no base flood elevations determined.
>
> Zone X – Areas determined to be outside 500-year flood plain.

EFFECTS TO GROUNDWATER HYDROLOGY, QUANTITY, FLOW AND QUALITY

The groundwater aquifer system underlying the Sacramento region is part of the larger Central Valley groundwater basin. Deep percolation of precipitation and surface water applied to irrigated crop land recharges the system. Groundwater is depleted by pumped extractions of groundwater for municipal, industrial and agricultural purposes. Groundwater levels in the region have been declining since 1940. The pattern of pumping has continued over the years and the current rate of decline is about 1.5 feet per year (SGPU EIR, W-9). Groundwater supplements municipal water supplies in areas north of the American River but the City south of the American River is supplied by surface water.

4.4.2 STANDARDS OF SIGNIFICANCE

FLOODING

An impact is considered significant if the Proposed Project would expose people and or property to the risk of injury and damage in the event of a 100-year flood.

SURFACE/GROUNDWATER

For purposes of this environmental document, an impact is considered significant if the Proposed Project would substantially degrade water quality or violate any water quality objectives set by the State Water Resources Control Board, due to increased sediments and other contaminants generated by consumption and/or operation activities.

4.4.3 IMPACT ANALYSIS

QUESTION A

Development of the Proposed Project would not significantly increase the amount of impervious surfaces, as a large number of proposed bikeways would be situated on right of ways as part of the circulation infrastructure. The proposed off-street bikeways would conform to the required Bikeway Master Plan design standards to minimize the impacts of impervious surface runoff. Therefore, impacts from the Proposed Project on this issue are considered less than significant and will not be further discussed in the EIR.

QUESTION B

Because the project site is located partly within an A99 Zone, development associated with the Proposed Project is required to comply with the City of Sacramento Floodplain Management Regulations (Sacramento City Code, Chapter 15.104) and the Floodplain Risk Notification (Chapter 15.108). These regulations require building permit applicants to, by agreement with the City, assume the risk for all flood-related damage to the permitted construction, and agree to notify subsequent purchasers of flood risks. Therefore, impacts from the Proposed Project on water related hazards issue are considered less than significant and will not be further discussed in the EIR.

QUESTION C AND D

Prior to construction, the applicant will be required to obtain an NPDES permit from the SWRCB for development larger than 1 acre. In addition, the developer will be required to comply with the City's Grading, Erosion, and Sediment Control Ordinance (Sacramento City Code, Chapter 15.88). This will include implementation of Best Management Practices (BMPs) before, during and after construction. Erosion and sediment control BMPs protect the soil surface and prevent soil particles from being detached by rainfall, flowing water, or wind. Erosion and sediment control BMPs include the use of hydroseeding, earth dikes, silt fences, fiber rolls, straw bale barriers, and drainage swales. Erosion control is also referred to as soil stabilization. BMPs will minimize erosion and sedimentation, and prevent pollutants such as oil and grease from entering storm water drains. Compliance with BMP provisions will assure that development and use of the site will result in a less than significant impact to surface waters and will not result in the alteration of surface water quality. Development of the site is not expected to result in changes to currents, or the course or direction of water movement. Therefore, impacts from the Proposed

Project on surface water quality are considered less than significant and will not be further discussed in the EIR.

QUESTION E-G

The Proposed Project does not include the drilling of wells for use of groundwater. The Proposed Project is not expected to require dewatering activities.

4.4.4 FINDINGS

The proposed project would result in less-than-significant impacts with regards to water, surface run-off, flooding, discharge, changes in currents, or groundwater.

4.5 AIR QUALITY

Question: Would the proposal?		*Potentially Significant Impact*	*Potentially Significant Unless Mitigated*	*Less than Significant Impact*
a)	Violate any air quality standard or contribute to an existing or projected air quality violation?	☐	☒	☐
b)	Exposure of sensitive receptors to pollutants?	☐	☒	☐
c)	Alter air movement, moisture, or temperature, or cause any change in climate?	☐	☐	☒
d)	Create objectionable odors?	☐	☒	☐

AIR QUALITY DISCUSSION

4.5.1 SETTING

The air quality of a region is determined by the quantities and type of pollutants emitted, and by the concentrations and accumulations of those pollutants under the influences of the local meteorology and topography. The Sacramento Valley is bounded by the coastal ranges to the west and the Sierra Nevada to the east. The Carquinez Strait, which is a sea level gap in the Coast Range, is located 50 miles southwest of Sacramento. Between Sacramento and the Coast Range the intervening terrain is very flat. The prevailing wind direction in Sacramento is northeasterly, resulting *from* marine breezes through the Carquinez Strait. During winter, when the sea breeze diminishes, northerly winds occur more frequently, but southerly winds predominate.

The project area is within the Sacramento Valley Air Basin and is under the jurisdiction of the Sacramento Metropolitan Air Quality Management District (SMAQMD). According to SMAQMD, State and Federal air quality standards for ozone, carbon monoxide, and particulate matter have been exceeded several times per year in the Sacramento region. Areas that do not meet the air quality standards are designated as "nonattainment" areas that must develop regional air quality plans to show how the area will eventually attain the standards. SMAQMD is responsible for implementing emissions standards, permitting and maintaining air quality monitoring stations in the City and County of Sacramento.

The General Plan EIR identified urban emission sources as the primary source for existing air quality problems. Major sources of air pollutants in the Sacramento area are: vehicle exhausts; solvent use; pesticide application; petroleum processing, transfer and storage; industrial processes; and agricultural and waste burning. The automobile is the largest single source category for carbon monoxide, ozone precursor emissions, and particulate matter. Air quality pollutants are characterized as "primary or secondary" pollutants. Primary pollutants are those emitted directly into the atmosphere. Secondary pollutants are those formed through chemical reactions in the atmosphere.

Ozone

Ozone is a secondary pollutant produced over time by a complicated series of chemical reactions. Ozone is the main component of photochemical smog and is primarily a summer/fall period pollution problem when an inversion layer forms trapping and heating emissions. Due to prevailing wind direction, ozone levels are highest in the northeastern part of the Sacramento air basin. Ozone problem have been identified as the cumulative result of regional development and transportation patterns (SGPU EIR, Z-9, 13).

Carbon Monoxide (CO)

Carbon monoxide is a primary pollutant that occurs during winter. Motor vehicle emissions are the dominant source of CO in most areas. CO problems are usually localized and are often result of a combination of high traffic volumes and significant traffic congestion (SGPU EIR, Z-17).

Particulate Matter (PM-10)

Particulate matter refers to a wide range of solid particles in the atmosphere of less than 10 microns in diameter. The movement of vehicles on paved roads, construction and farming activities contribute to PM-10 emissions. Construction generated PM-10 problems normally occur when these activities are not controlled with a dust abatement program.

The air quality in California is governed by Federal and California Clean Air Acts, and the California Health and Safety Code. The Environmental Protection Agency and the California Air Resources Board have established air quality standards for several pollutants. The Sacramento Metropolitan area is a nonattainment area for ozone, CO and PM-lO.

4.5.2 STANDARDS OF SIGNIFICANCE

Construction and operation impacts are considered significant if the project would result in a net increase in criteria air pollutants that exceed the following Yolo-Solano AQMD thresholds as listed in the *Air Quality Thresholds of Significance* (1994), and revised April 12, 2002, which are as follows:

Short-Term (Construction)	ROG	None
	NO_x	85 lbs/day
	PM_{10}	275 lbs/day
Long-Term (Operation)	ROG	65
	NO_x	65 lbs/day
	PM_{10}	275 lbs/day

4.5.3 IMPACT ANALYSIS

QUESTIONS A AND B

Construction emissions associated with the development of the project elements could result in violations or substantial contributions to an existing or projected violation of an ambient air quality standard, or exposed sensitive receptors (e.g., children, athletes, elderly, sick) to substantial pollutant concentrations. This issue will be analyzed in the Air Quality Section of the EIR.

QUESTION C

The Proposed Project is not expected to create a substantial alteration of air movement, moisture, or temperature, or cause any change in regional climate because it will not involve long-term emissions. This issue is considered less than significant.

QUESTION D

Odors are not expected to be different than currently exist at the project site. This issue is considered less than significant.

4.5.4 FINDINGS

Construction activities associated with the development of the project site could result in air quality impacts if left unmitigated. These issues will be addressed within the EIR.

4.6 TRANSPORTATION/CIRCULATION

Question: Would the proposal result in?		*Potentially Significant Impact*	*Potentially Significant Unless Mitigated*	*Less than Significant Impact*
a)	Increased vehicle trips or traffic congestion	☐	☐	☒
b)	Hazards to safety from design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒
c)	Inadequate emergencies access or access to nearby uses?	☐	☐	☒
d)	Insufficient parking capacity on-site or off-site?	☐	☐	☒
e)	Hazards or barriers for pedestrians or bicyclists?	☐	☒	☐
f)	Conflicts with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☒
g)	Rail, waterborne or air traffic impacts?	☐	☐	☒

TRANSPORTATION AND SAFETY DISCUSSION

4.6.1 SETTING

BICYCLE SAFETY

Both a familiarity with and adherence to bicycle laws by the bicycle rider, and the provision of bikeways meeting accepted design standards, can help promote bicycle safety. Additionally, promotion of public education regarding bicycle laws and safe bicycle riding practices and vehicular driving practices when in the vicinity of bicyclists will help reduce undesired bicycle/vehicle conflicts and improve overall bicycle safety.

BICYCLE LA WS

The California Vehicle Code (Ve) stipulates rights and duties associated with the operation of bicycles on public streets within California. As stated within VC21200 - "Every person riding a bicycle on a street or highway has all the rights and is subject to all duties applicable to the driver of a vehicle." With the exception of freeways with signed restricted access, bicycles have the right to travel on any roadway within the State of California, and thus also any roadway within the City of Sacramento.

BIKEWAY DESIGN

The Caltrans Highway Design Manual designates design criteria, including signing and pavement requirements, for designated bikeways within California. In addition, the Caltrans Traffic Manual provides additional standards relating to signs and delineation barrier systems. Although the City of Sacramento generally utilizes Caltrans Highway Design criteria for use in designing bikeways, the City has outlined specific design criteria as outlined within the 2010 Sacramento City/County Bikeway Master Plan which incorporates Caltrans Highway Design criteria.

Bikeways are divided into three types of classes which define the level of separation between the bikeways and vehicular traffic. The 2010 Sacramento City/County Bikeway Master Plan defines these three bikeway classes as follows:

(1) Class I Bikeway (Bike Trail or Bike Path). A completely separated facility designated for the use of bicycles. The facility is separated from the street or highway by a physical space, berm, fence, or other barrier.
(2) Class II Bikeway (Bike Lane). A lane within a street or roadway designed for the one-way use of bicycles. It is an on-street facility with signs, striped lane markings, and pavement legends.
(3) Class III Bikeway (Bike Route). Any on-street right-of-way recommended for bicycle travel which provides for shared use with motor vehicles or pedestrian traffic.

Class I Bikeways

Class I bikeways, or bike paths as they are commonly called, are facilities with exclusive right of way, with cross flows by motorists minimized. A Class I bikeway provides the safest and most efficient means of bicycle travel and is the preferred option for bikeway development. Although Caltrans' Street and Highways Code designates that Class I bikeways serve "the exclusive use of bicycles and pedestrians," dual use of a Class I bikeway by both pedestrians and bicycles is undesirable, and the two should be separated wherever possible (especially if pedestrian use is anticipated to be particularly heavy) to minimize bicycle/pedestrian conflicts.

2010 Sacramento City/County Bikeway Master Plan stipulates that the minimum paved width for a two-way bike path shall be 8 ft, that the minimum paved width for a one-way bike path shall be 5 ft. Additionally, it is required that a minimum 3 ft wide graded areas shall be provided adjacent to the pavement, unless a paved width wider than the minimum is provided whereby the graded area may be reduced accordingly).

The 2010 Sacramento City/County Bikeway Master Plan also provides design criteria for the intersection of Class I Bikeways with roadways:

Class II Bikeways

Class II bikeways, or bike lanes as they are commonly called, are established within the paved right-of-way area of roadways for preferential use by bicycles. The bikeway is delineated by pavement markings consisting of a continuous stripe on the pavement, as well as bikeway pictograph on the pavement, and bike lane signs. Bike lane stripes are intended to promote an orderly flow of traffic by establishing specific lines of demarcation between areas reserved for bicycles and lanes to be occupied by motor vehicles. Bike lane stripes can increase bicyclists' confidence that motorists will not stray into their path of travel if they remain within the bike lane. Likewise, with more certainty as to where bicyclists will be, passing motorists are less apt to swerve toward opposing traffic in making certain they will not hit bicyclists. The minimum width of the bike lane where parking stalls are marked shall be 5 ft. The minimum width of the bike lane where parking is permitted shall be 11 or 12 ft (depending on the type of curb). The minimum bike lane width shall be 4 ft if no gutter exists. With a normal 2 ft gutter, the minimum bike lane width shall be 5 ft. The intent is to provide a minimum 4 ft wide bike lane, but with at least 3 ft between the traffic lane and the concrete gutter.

Class III Bikeways

Class III bikeways, or bike routes as they are commonly called, are intended to provide continuity to the bikeway system. Bike routes are established along through routes not served by Class I or II bikeways, or to connect discontinuous segments of bikeway (normally bike lanes). Class III facilities are shared facilities, either with motor vehicles on the street, or with pedestrians on sidewalks, and in either case bicycle usage is secondary. Class III facilities are established by placing Bike Route signs along roadways, and by definition are not indicated by a continuous stripe on the pavement or separated by any type of barrier. Because no separation is provided, there is a higher potential for safety conflicts between automobiles and bicycles and between bicycles and pedestrians.

Class III Bikeway Design Criteria

Per the 2010 Sacramento City/County Bikeway Master Plan, minimum widths for Class III bikeways are not defined, as the acceptable width is dependent on many factors, including the volume and character of vehicular traffic on the road, typical speeds, vertical and horizontal alignment, sight distance, and parking conditions.

Since bicyclists are permitted on all highways (except prohibited freeways), the decision to sign the route should be based on the advisability of encouraging bicycle travel on the route and other factors listed below. To be of benefit to bicyclists, bike routes should offer a higher degree of service than alternative streets. Routes should be signed only if some of the following apply:

a) They provide for through and direct travel in bicycle-demand corridors. b) Connect discontinuous segments of bike lanes.
c) An effort has been made to adjust traffic control devices (stop signs, signals) to give greater priority to bicyclists, as compared with alternative streets. This could include placement of bicycle sensitive detectors on the right hand portion of the road, where bicyclists are expected to ride.

d) Street parking has been removed or restricted in areas of critical width to provide improved safety.
e) Surface imperfections or irregularities have been corrected (e.g., utility covers adjusted to grade, potholes filled, etc.).
f) Maintenance of the route will be at a higher standard than that of other comparable streets (e.g., more frequent street sweeping).

ACCIDENT STATISTICS

The City of Sacramento experiences an average of 228 bicycle/auto accidents per year, nearly all of which include an injury. On average, 2 or 3 bicyclists are killed per year within the City of Sacramento, accounting for approximately I % of all bicycle/auto accidents.

Bicyclists riding the wrong way are the single largest factor in bike/vehicle accidents, and have statistically accounted for approximately 40% of reported accidents. Lack of adequate lighting on bicycles is another leading factor leading to bicycle/auto accidents. Intersections, however, are where a significant majority of bicycle/auto accidents occur. Nearly 75% of all bicycle/auto accidents occurring within the City of Sacramento between 2000 and 2002 occurred either within an intersection or within 100 foot of an intersection. Most bicycle/auto accidents within intersections occur as a result of right turning vehicles interfering with bicycles proceeding straight ahead, or left turning cyclists who must weave through traffic to reach the left turn lane, and complete the left turn movement.

BARRIERS TO TRANSPORTATION

Barriers to bicycle transportation occur where the existing circulation network might not provide for the safe through movements of bicycles along the roadway network. For purposes of this discussion, physical barriers to through bicycle travel are defined as freeways, drainages, rivers and railroad right-of-ways. Although crossings may be available to vehicular traffic across these barriers, they may act as a physical barrier to bicycles, particularly if the roadway is not designated as a bikeway. Perhaps the most significant barrier within the City of Sacramento is the American River which is a major barrier to north-south traffic. A barrier can also exist when the roadway has such heavy traffic volumes that the intersections and interchanges act as barriers to through bicycle movements because the bicycle cannot compete safely with the large number of vehicles and high turning movement volumes.

4.6.2 STANDARDS OF SIGNIFICANCE

A significant bikeway impact would occur if the project hindered or eliminated an existing designated bikeway, or if the project interfered with implementation of a proposed bikeway. A significant bikeway impact could occur if the project were to result in unsafe conditions for bicyclists, including unsafe bicycle/pedestrian or bicycle/motor vehicle conflicts.

A significant bikeway impact would occur if the project were to result in barriers for pedestrians and bicyclists.

4.6.3 IMPACT ANALYSIS

QUESTION A

Additional AM and PM peak hour trips have the potential to be reduced if the Proposed Project is approved given that one of the main objectives of the proposed project is to provide an alternative commute mode, Therefore, no congestion impacts are expected to result from the approval of the Proposed Project.

QUESTION B

The addition of off-street bikeways could encroach into areas supporting agricultural production. Off-street bikeways through agricultural areas would most likely affect narrow strips of agricultural land. However, impacts could occur by displacing agricultural production, while indirect impacts such as trespassing and vandalism could occur on adjacent agricultural lands following project implementation. Farming operations could also be a hazard to bicyclists. Farm equipment and pesticide spraying could be potentially dangerous to bikeway users. This is seen as potentially significant impact and will be analyzed further within the Land Use and Transportation and Safety sections of the EIR.

QUESTION C – D

The Proposed Project includes the establishment of new on-and off-street bikeway alignments. On-street bikeway alignments will be sited on existing circulation infrastructure and are not expected to result in inadequate emergency access or access to nearby uses or create insufficient parking supply. Off-street bikeways are sited away from the influence of streets and would not result in inadequate emergency access or access to nearby uses or create insufficient parking supply.

QUESTION E

The Proposed Project has the potential to create hazards or barriers for pedestrians or bicyclists. Physical barriers to through bicycle travel are defined as freeways, drainages, rivers and railroad right-of-ways. Although crossings may be available to vehicular traffic across these barriers, they may act as a physical barrier to bicycles, particularly if the roadway is not designated as a bikeway. Perhaps the most significant barrier within the City of Sacramento is the American River which is a major barrier to north-south traffic. Bridges currently available to bicycle traffic within the City of Sacramento include (from east to west) the Jiboom Street Bridge within Discovery Park, a dedicated American River pedestrian/bicycle crossing near 14th Street, and Guy West Bridge at California State University-Sacramento. Although bridges across the American River are provided for vehicular traffic along Watt Avenue, Howe Avenue, and Fair Oaks Boulevard, none are designated as bike routes, and bicycle traffic is prohibited along the freeway bridges along 1-5, SR-160, and the Capitol City Freeway This potential impact to bicyclists will be analyzed in the transportation and safety section of the EIR.

QUESTION F

The Proposed Project is not expected to conflict with adopted policies supporting alternative transportation because the Proposed Project will promote the bicycle an alternative mode of transportation.

QUESTION G

The Proposed Project includes the establishment of new on-and off-street bikeway alignments that may cross railroad tracks and run along side railroad corridors. Bikeways that cross railroad tracks are regulated by the California Public Utilities Commission (CPUC). All new bike path railroad crossings must be approved by the CPUC. Necessary railroad protection will be determined based on a joint field review involving the applicant, the railroad company, and the CPUC (City of Sacramento, 1991). The proposed bikeway alignments are not sited through areas that would pose a physical interference that would obstruct normal air traffic operation. Additionally, the proposed alignments are not located through areas that would prohibit the movement of waterborne traffic.

4.6.4 FINDINGS

Operation of the Proposed Project could result in transportation and safety impacts if left unmitigated. These issues will be addressed within the EIR.

4.7 BIOLOGICAL RESOURCES

Question: Would the proposal result in impacts to?	*Potentially Significant Impact*	*Potentially Significant Unless Mitigated*	*Less than Significant Impact*
a) Endangered, threatened or rare species or their habitats (including, but not limited to plants, fish, insects, animals and birds)?	☐	☒	☐
b) Locally designated species (e.g., heritage or City street trees)?	☐	☒	☐
c) Wetland habitat (e.g., marsh, riparian and vernal pool)?	☐	☒	☐

BIOLOGICAL RESOURCES DISCUSSION

4.7.1 SETTING

The Proposed Project areas are located throughout the City of Sacramento and occur in both developed and undeveloped areas of the city. The proposed on-street bikeways would occur either in association with existing city streets or streets planned for future development. The proposed off-street bikeways would occur in association with existing canal banks and levees, city and county parks, and other off street city right-of-ways.

Characteristic terrestrial vegetation communities occurring within the project region include annual grassland, oak savannah, oak woodland, remnant riparian woodland, ruderal grassland, agricultural crops, and urban ornamental landscaping. Aquatic habitats in the region include the Sacramento and American Rivers, irrigation and drainage canals, ephemeral and intermittent drainages, seasonal wetlands, freshwater marsh, and manmade ponds and reservoirs. The climate of the area is characterized by hot, dry summers and cool, moist winters; average precipitation is approximately 14 to 18 inches per year (U.S. Department of Agriculture, 1997).

A list of regionally occurring special-status plant and animal species was compiled based on a review of pertinent literature, reconnaissance-level site assessments, informal consultation with the U.S. Fish and Wildlife Service via the USFWS Internet site (URL = http://sacramento.fws.gov/spp_list.htm) and via a letter requesting information, and the results of a California Natural Diversity Data Base (CNDDB) query (California Department of Fish and Game, 2003) of all reported occurrences of special-status species within the various USGS 7.5 minute topographic quadrangle that encompass the project area . Habitat requirements for each special-status species were assessed and compared to the habitats occurring project areas.

During the site visits on June 26 and 27, 2003, no special-status species were observed within the project area, however no general or directed surveys were conducted as part of this assessment. The CNNDB reported special-status species occurrences within the vicinity of the project areas. Actual locations of special-status species occurrences relative to the proposed bikeway alignments were not determined for the level of this assessment.

Based upon the review of regionally occurring special-status species and the results of the habitat assessments, the project areas and/or surrounding vicinity represent potential habitat for six special-status plant species and 30 special-status animal species.

STREAMS AND CANALS

Several of the off-street bikeway alignments would be constructed on and adjacent to existing stream and canal banks. The bikeways associated with canals in the Natomas and South Sacramento areas would be developed on existing canal levees that do not support wetland vegetation, and are in general existing gravel roads that have historically been used by local water district personnel. The identified stream and the several canals were observed to support emergent wetland vegetation dominated by rush (*Juncus sp.*), tule (*Scirpus sp.*), and cattails

(*Typha latifolia*). These areas would likely provide habitat for several special-status species. Potentially occurring special-status species would include: Sanford's arrowhead, Sacramento perch, northwestern pond turtle, giant garter snake, tricolored blackbird, and snowy egret. In areas where the canal banks/levees have rodent burrows, suitable habitat would also exist for burrowing owls.

Potentially occurring special-status species associated with this area would include: green sturgeon, river lamprey, Pacific lamprey, Central Valley steelhead, Central Valley fall/late fall-run, spring-run, and winter run Chinook salmon, northwester pond turtle, and bank swallow.

AMERICAN RIVER

The proposed American River crossing at Truxel Road would involve the construction of a new bridge across the river. The banks of the river in this area are comprised of areas of bare, sandy concretions and shrubby riparian vegetation dominated by willows and blackberry *(Rubus sp.)*.

Potentially occurring special-status species associated with this area would include: green sturgeon, river lamprey, Pacific lamprey, Central Valley steelhead, Central Valley fall/late fall-run, spring-run, and winter run Chinook salmon, northwester pond turtle, and bank swallow.

VERNAL POOLS

The North Laguna Creek Wildlife Area Bike Trail Initial Study/Mitigated Negative Declaration identified vernal pool habitat within the vicinity of the proposed bikeway. Field efforts in December 2002, identified these features to be functioning as seasonal wetlands and not as vernal pools.

These features were not observed during a visit to this area. As vernal pool habitat this area represents potential habitat for dwarf downingia, Boggs lake hedge-hyssop, legenere, vernal pool fairy shrimp, midvalley fairy shrimp, vernal pool tadpole shrimp, California lineriella fairy shrimp, California tiger salamander, and western spadefoot toad.

4.7.2 STANDARDS OF SIGNIFICANCE

SIGNIFICANCE CRITERIA

For purposes of this environmental document, an impact would be considered significant if any of the following conditions, or potential therefore, would result with implementation of the Proposed Project:

- Creation of a potential health hazard, or use, production or disposal of materials that would pose a hazard to plant or animal populations in the are affected;

- Substantial degradation of the quality of the environment, destruction of the habitat, reduction of the population below self-sustaining levels of threatened or endangered species of fish, plant or wildlife;

- Interfere substantially with the movement of any resident or migratory fish or wildlife species;

- Affect other species of special concern to agencies or natural resource organizations (such as regulatory waters and wetlands); or

- Violate the City of Sacramento Tree Ordinance (Sacramento City Code Chapter 12.56 and 12.64, as amended).

CITY STREET TREES

A "City street tree" is defined as any tree growing on a public street right-of-way.

The City of Sacramento tree ordinance provides for the protection of City street trees as follows:

- No person shall remove, trim, prune, cut or otherwise perform any maintenance on any City street tree without first obtaining a permit from the Director of the Parks and Recreation Department.

- No person shall interfere or cause any person to interfere with any tree related work being done pursuant to this article by any employee of the City of Sacramento or any person or firm doing work for the City.

- No person shall injure or destroy any City street tree by any means, including but not limited to the following:

    - Constructing a concrete, asphalt, brick, or gravel sidewalk, or otherwise filling up the ground area around any tree so as to shut off air, light, or water from its roots, unless ordered or authorized to do so by the City.
    - Piling building material, equipment, or other substance around any tree so as to injure the tree
    - Pouring any deleterious matter on or around any tree or on the surrounding ground, lawn, or sidewalk
    - Posing any sign, poster, notic, or similar device on any tree, tree stake or guard, or by fastening any guy wire, cable, rope nails, screws, or other device to any tree, tree stake or guard for any uprpose other than supporting the tree.
    - Causing any fire or burning near or around any tree
    - Cutting roots with a diameter of two inches (2") or greater for sidewalk repair or any other pupose; provided, however, that roots with a diameter of two inches or greater may be cut if authorized in advance by the Director of the Parks and Recreation Department.

- The Director of Public Works and the Planning Director shall notify the Director of Parks and Recreation Department of any applications for new subdivisions, curb, gutter, sidewalk, street light or driveway installation, or other proposed improvements which might require the removal of or cause injury to, any City street tree, or interfere with the fulfillment of the maintenance easement private street tree plantings.

HERITAGE TREES

The City of Sacramento tree ordinance defines a "heritage tree" as:

- Any tree of any species with a trunk circumference of one hundred inches or more, which is of good quality in terms of health, vigor of growth, and conformity to generally accepted horticultural standards of shape and location for its species.

- Any native *Quercus* species, *Aesculus californica,* or *Platanus racemosa* having a circumference of 36 inches or greater when a single trunk, or a cumulative circumference of 36 inches or greater when a multi-trunk.

- Any tree 36 inches or greater in circumference in a riparian zone. The riparian zone is measured from the centerline of the water course to 30 feet beyond the high water mark.

- Any tree, grove of trees, or woodland trees designated by resolution of the City Council to be of special historical or environmental value, or of significant community benefit.

The City of Sacramento tree ordinance states that none of the following activities shall be performed unless a permit therefore is first applied for by the property owner or person authorized by the property owner and granted by the Director of the Parks and Recreation Department, subject to appeal provisions.

1. The removal of any heritage tree.
2. Pruning of any heritage tree segment greater than twelve inches in circumference or the placement of any chemical or other deleterious substance by spray or otherwise on any heritage tree.
3. Disturbing the soil or placing any chemical or other deleterious substance or material on the soil within the drip line area of any heritage tree.

4.7.3 IMPACT ANALYSIS

QUESTION A

The proposed project could potentially result in both direct and indirect impacts to four special-status plant species and 30 special-status animal species outlined above. Direct impacts could result from the development of off-street bikeways in riparian woodlands, oak woodlands, and wetlands previously identified. The development of bikeways in these areas could potentially

require vegetation clearing and the fill of wetlands for bridge crossings. Indirect impacts could include disturbance from construction related activity and from general bikeway usage in certain sensitive areas. Indirect impacts would stem from disturbance to the aforementioned species during the construction and use of the proposed bikeways. The proposed project could also result in impacts to nesting birds, which are protected under the Migratory Bird Treaty Act.

The Natural Resource Sensitive Alternative could potentially result in indirect impacts to nesting birds in City street trees. Construction activity during periods of nesting could lead to interference with normal behavior and/or nest abandonment.

These biological impact issues will be evaluated in Section 6.4 Biological Resources of the EIR. All project related activity in the Natomas Basin shall comply with the conservation measures for special-status species covered by the NBHCP. All project related activity in the North Laguna Creek Wildlife Area shall comply with the mitigation measures outlined in the North Laguna Creek Wildlife Area Bike Trail Initial Study/Mitigated Negative Declaration. With mitigation measures, the Proposed Project would result in a less than significant impact to endangered, threatened or rare species.

QUESTION B

Impacts to City Street Trees

A "City street tree" is defined as any tree growing on a public street right-of-way. The development of on-street bikeways on existing roads could possibly require road widening, which could result in direct and indirect impacts to City street trees. These impacts could result trom construction activities such as curb removal, trenching, and material stockpiling resulting in soil compaction. Any loss of the urban tree canopy in the City would likely result in the following impacts: loss of aesthetic and biological values that trees provide, loss of shade currently shielding residences from summer heat, and loss of nesting habitat for bird species.

All Project related activity must comply with the provisions of Sacramento City Codes Chapter 12.56. Mitigation measures should be implemented when working in the immediate vicinity of City street trees. These potentially significant biological impact issues and mitigation measures will be evaluated in Section 6.4 Biological Resources of the EIR.

Impacts to City Heritage Trees

The development of off-street bikeways in Discovery Park and Natomas Oaks Park in the community of South Natomas could result in direct and indirect impacts to City heritage trees. These impacts would result from the direct loss of heritage trees through clearing of vegetation for the two proposed bikeways in Discovery Park and indirect impacts to heritage oaks in Natomas Oaks Park through soil compaction in root zones. The loss of these trees would likely result in the following impacts: loss of aesthetic and biological values that trees provide and loss of nesting habitat for bird species, including special-status species.

All Project related activity must comply with the provisions of Sacramento City Codes Chapter 12.64. These potentially significant biological impact issues and mitigation measures will be evaluated in Section 6.4 Biological Resources of the EIR.

QUESTION C

The proposed project could potentially result in impacts to Waters of the U.S. These impacts would result from the three proposed bridge crossing of waters under the jurisdiction of the USACE. Indirect impacts to waters of the U.S. could result from incidental fill to waters adjacent to proposed bikeways. The construction of several proposed bikeways on existing levees could result in impacts to water quality and habitat in these features. These potentially significant biological impact issues and mitigation measures will be evaluated in Section 4.6 Biological Resources of the EIR.

4.7.4 FINDINGS

The Proposed Project would result in a less than significant impact to biological resources after the implementation of mitigation measures. However, these issues will be discussed in the Section 6.4 Biological Resources of the EIR.

4.8 ENERGY

Question: Would the proposal result in impacts to?	*Potentially Significant Impact*	*Potentially Significant Unless Mitigated*	*Less than Significant Impact*
a) Power or natural gas?	☐	☐	☒
b) Use non-renewable resources in a wasteful and inefficient manner?	☐	☐	☒
c) Substantial increase in demand of existing sources of energy or require the development of new sources of energy?	☐	☐	☒

ENERGY RESOURCES DISCUSSION

4.8.1 SETTING

GAS SERVICE / FACILITIES

Pacific Gas and Electric (PG&E) is the electricity and natural gas utility for the City of Sacramento. Natural gas is supplied from natural gas suppliers via 5,700 miles of PG&E transmission pipelines to more than 41 compressor stations where natural gas is further distributed through more than 35,000 miles of distribution pipelines. Not all areas are currently provided with gas service. Extension of gas mains to areas not presently served would be in accordance with Gas Rule 15, as approved by the California Public Utilities Commission (CPUC).

PG&E gas transmission pipelines are concentrated north of the City of Sacramento. Distribution pipelines are located throughout the City, usually either three to five, or eight to ten feet below grade along City and County Public Utility Easements (PUEs) (City of Sacramento, 2003).

ELECTRIC SERVICE/ FACILITIES

The Sacramento Municipal Utility District (SMUD) supplies electricity to the City of Sacramento. SMUD has a service area of 900 miles within Sacramento County and portions of Placer County. SMUD operates a variety of hydroelectric, photovoltaic, geothermal and co-generation power plants. SMUD also purchases power *from* PG&E and the Western Area Power Administration.

Major electrical transmission lines are located in the northeastern portion of the City of Sacramento. Like gas service, distribution pipelines are located throughout the City, usually either three to five, or eight to ten feet below grade along City and County PUEs (City of Sacramento, 2003).

ENERGY REGULATIONS

The State Building Energy Efficient Standards (Title 24, Part 6) regulate energy consumption of new buildings in California. Title 24 regulates energy consumed for heating, cooling, ventilation, water heating, and lighting in all new residential and non-residential buildings. Energy efficiency "Standards" are developed by the Californian Energy Commission and enforced by the City's building department when an applicant submits plans for a building permit (City of Sacramento, 2003).

4.8.2 STANDARDS OF SIGNIFICANCE

A significant environmental impact would result if a project would require PG&E to secure a new gas source beyond their current supplies. Additionally, a significant impact would occur if the project resulted in the need for a new electrical source (e.g., hydroelectric and geothermal plants).

4.8.3 IMPACT ANALYSIS

QUESTION A - C

Energy will be consumed during construction of the Proposed Project. This energy requirement will be met through the use of electricity and fossil fuels. The Proposed Project is not expected to result in the construction and use of buildings and facilities therefore, there is no anticipated increase in demand upon existing energy source. Therefore, energy impacts from the Proposed Project are considered less than significant and will not be further discussed in the EIR.

4.8.4 FINDINGS

The Proposed Project would result in less-than-significant impacts regarding energy systems and supply and will not be discussed in the EIR.

4.9 HAZARDS

Question: Would the proposal involve?	*Potentially Significant Impact*	*Potentially Significant Unless Mitigated*	*Less than Significant Impact*
a) A risk of accidental explosion or release of hazardous substances (including, but not limited to: oil, pesticides, chemicals or radiation)?	☐	☐	☒
b) Possible interference with an emergency evacuation plan?	☐	☐	☒
c) The creation of any health hazard or potential health hazard?	☐	☐	☒
d) Exposure of people to existing sources of potential health hazards?	☐	☐	☒
e) Increased fire hazard in areas with flammable brush, grass, or trees?	☐	☐	☒

HAZARDS DISCUSSION

4.9.1 SETTING

At the present time, hazardous materials use, storage, disposal, or releases are not known to exist at any of the proposed bikeway alignment locations. However, project specific analysis of each bikeway alignment should be undertaken in order to ensure that bikeways are not sited through areas associated with hazardous materials.

4.9.2 STANDARDS OF SIGNIFICANCE

For the purpose of this document, an impact is considered significant if the Proposed Project would expose people (e.g. residents, pedestrians, construction workers) to: existing contaminated soil during construction activities, asbestos containing building materials, existing contaminated groundwater during de-watering activities, or increased fire hazards.

4.9.3 IMPACT ANALYSIS

QUESTION A-D

Project construction would require the use of certain potentially hazardous materials such as fuels and oil. These materials would generally be used with construction equipment and would be contained within vessels engineered for safe storage. Storage of significant quantities of these materials at construction sites is not anticipated. Normal operating procedures and maintenance would reduce the risk of such hazards to a less than significant level. Certain materials, like paint products, would be subject to existing "point of sale" regulations which address proper storage and handling of over-the-counter products considered hazardous. The operation of the Proposed Project is not expected to expose people to existing sources of potential health hazards. Since the precise location of the proposed bikeways alignments are not known at this time, project specific analysis should be undertaken to determine if any of the proposed alignments would be sited though areas that would expose people to existing sources of potential health hazards.

Construction areas are not expected to cause interference with an emergency evacuation plan. The final design of the project is not expected to result in interference with an emergency evacuation plan because the physical characteristics of on- and off-street bikeways would not block or disrupt an emergency evacuation.

QUESTION E

Off-street bike paths follow natural geographic or man-made features that are primarily linear such as railroad rights-of-way, canal banks, utility easements, and creek or river corridors. These kinds of features exist in both developed and undeveloped areas. Construction activities associated with the Proposed Project have the potential to ignite potentially flammable vegetation in the undeveloped areas. Construction of on- or off-street bikeways in vegetated areas may introduce potential sources for fire. Equipment used during grading and construction activities

may also create sparks, which could ignite potentially flammable vegetation that may be present on the project site. Standard construction practice is to equip machinery with spark arresters. A less than significant impact is expected to occur.

4.9.4 FINDINGS

Development on the project site will not result in a hazards impact. This issue will not be addressed within the EIR.

4.10 NOISE

Question: Would the proposal result in?	*Potentially Significant Impact*	*Potentially Significant Unless Mitigated*	*Less than Significant Impact*
a) Increases in existing noise levels?			
Short term	☐	☒	☐
Long term	☐	☐	☒
b) Exposure of people to severe noise levels?			
Short term	☐	☒	☐
Long term	☐	☒	☐

NOISE DISCUSSION

4.10.1 SETTING

Due to the very large geographic area in which the Bikeway Master Plan system is located, the bikeway system passes virtually every type of existing land use in the Sacramento area. Trails within the Bikeway Master Plan area traverse residential, commercial, transit, industrial, open space, public facility, and office/professional type land uses, and parkways, amongst others. The areas which are the focus of the Bikeway Master Plan amendments consist of College Greens, Airport/Meadowview, East City/McKinley Park, North Natomas, South Natomas, South Sacramento, and Tahoe Park.

4.10.2 STANDARDS OF SIGNIFICANCE

SIGNIFICANCE CRITERIA

The CEQA guidelines which are applicable to this project state that implementation of the project would result in significant noise impacts if the project would result in the following:

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.

The only identified potentially significant noise impacts associated with this project would be the exposure of cyclists to noise levels which are at the upper end of acceptability for active recreation uses. As a result, this analysis considers the exposure of cyclists to exterior noise levels in excess of 75 dB Ldn to be significant in that it could be perceived as annoying to the cyclist.

4.10.3 IMPACT ANALYSIS

QUESTION A

Cycling activities are not commonly considered to be noise generating, and many of the bikeways are located on-street in areas where ambient noise conditions are defined primarily by local traffic, therefore, no long term increases in noise levels from bikeway users are anticipated. Short term activities associated with construction at the project site would result in elevated noise levels in the immediate area. Construction activities would be temporary in nature and would likely occur during normal daytime working hours. Noise regulations pertaining to construction activities in the City of Sacramento's Noise Ordinance would be applicable to site development. Compliance with the Noise Ordinance will result in a less than significant impact.

QUESTION B

The ambient noise environment along the various trails within the bikeway system varies considerably. Persons using the bikeway system will be exposed to a variety of localized noise sources as they cycle. For example, a cyclist utilizing the bikeway may be exposed to brief periods of elevated noise from impact wrenches as they pass a tire store, back-up beepers while passing a construction site, small aircraft overflights in the Airport/Meadowview area, and/or lawn-mower noise in any number of residential areas, to name a few. The periods of exposure are normally brief, and because these types of community noise are so commonplace, the cyclist may or may not notice these everyday sources of noise during their ride.

While the cyclist will undoubtedly be exposed to a variety of noise sources which will be transient to the rider as they pass the types of localized noise sources described above, many of the trails within the Bikeway System are located either on-street, or off-street yet close to significant transportation corridors. As a result, the most predominate noise source a rider can expect to encounter while using the Bikeway System is noise generated by surface traffic.

These potentially significant noise impact issues and mitigation measures will be evaluated in the Noise Section of the EIR.

4.10.4 FINDINGS

Potentially significant impacts that have been identified above will be discussed in greater detail within Section 6.3 Noise of the EIR.

4.11 PUBLIC SERVICES

Question: Would the proposal have an effect upon or result in a need for new or altered government services in any of the following areas?	*Potentially Significant Impact*	*Potentially Significant Unless Mitigated*	*Less than Significant Impact*
a) Fire protection?	☐	☐	☒
b) Police protection?	☐	☐	☒
c) Maintenance of public facilities, including roads?	☐	☐	☒
d) Other governmental services?	☐	☐	☒

PUBLIC SERVICES DISCUSSION

4.11.1 SETTING

Law Enforcement for the City of Sacramento, including the existing Bikeway System, is provided by the Sacramento City Police Department. The Police Department has developed a joint program with the City Department of Parks and Recreation to supplement police activities within the City's parks, where some of the proposed bikeway alignments are located. The Sacramento City Fire Department provides fire protection for the City of Sacramento. The Sacramento City Fire Department consists of 22 fire stations throughout the City (Sacramento City Fire Dept, 2000). New road construction and maintenance is provided by the City of Sacramento Public Works.

4.11.2 STANDARDS OF SIGNIFICANCE

The Proposed Project would be considered to result in a significant impact if it would result in an unplanned need to expand public services.

4.11.3 IMPACT ANALYSIS

QUESTION A-D

The incremental increases in the need for public services resulting from the development of the Proposed Project would not result in the need for new or altered government services. Additionally, on-street bikeways would be sited along existing or planned circulation infrastructure, areas that have existing police protection. Off-street bikeways are designed as travel corridors that make them less likely to attract nuisance and other unlawful activities and should not require additional police protection. The Proposed Project does not require any new structures to be built that would require additional fire services. On-street bikeways will not add any additional roadway maintenance requirements because they will be sited on existing or planned circulation infrastructure. Paved off street bikeways will require very little maintenance as bicycle use does not impact paved surfaces as heavily as automobiles. The Proposed Project will have a less-than-significant impact upon public services, and therefore, will not be further discussed in the EIR with regards to public services.

4.11.4 FINDINGS

The Proposed Project would result in less-than-significant impacts to public services.

4.12 UTILITIES

Question: Would the proposal result in the need for a new systems or supplies, or substantial alterations to the following utilities?	*Potentially Significant Impact*	*Potentially Significant Unless Mitigated*	*Less than Significant Impact*
a) Communication systems?	☐	☐	☒
b) Local or regional water supplies?	☐	☐	☒
c) Local or regional water treatment or distribution facilities?	☐	☐	☒
d) Sewer or septic tanks?	☐	☐	☒
e) Storm water drainage?	☐	☐	☒
f) Solid waste disposal?	☐	☐	☒

UTILITIES DISCUSSION

4.12.1 SETTING

The Proposed Project consists of amendments to the on- and off- street bikeways throughout the City of Sacramento. New and/or modified on- and off-street alignments are proposed for the following communities: Airport/Meadowview, College Greens, East City/McKinley Park, North Natomas, South Natomas, South Sacramento, and Tahoe Park. Pacific Gas and Electric provide natural gas, electricity is provided by SMUD, telephone lines are owned by Pacific Bell. Increased demands on facilities provided by private utility companies are met by assessing the developer the cost of connection and any required upgrades. The proposed project will not require connection to any of the above utilities.

NATURAL GAS AND POWER SYSTEMS

Increased demands on natural gas, electricity and communications systems are not expected because the Proposed Project does not require connection to natural gas, electricity, and communication systems.

COMMUNICATIONS SYSTEMS

Federal, state, and local government agencies as well as private entities use radio and microwave repeaters mounted on building rooftops and radar dishes on regional mountaintops for communications. Most radar energy is receivable within a certain arc, or range, from the sending point to the receiving point. Obstacles such as tall buildings sometimes block communication systems. On- and off-street bikeways are not expected to require use or interfere with these communication systems.

DOMESTIC WATER

The City *of* Sacramento provides water service to areas within the City limits from both surface and groundwater sources. The proposed bikeway project will not require surface or groundwater resources from the City *of* Sacramento.

SEWER AND STORM DRAINAGE

The City *of* Sacramento provides the sewage collection infrastructure throughout the City. The Proposed Project will not generate any sewage and will not require the City *of* Sacramento to provide sewage collection services.

During storm events, when the combined sewer system flows are greater than 60 mgd, excess flows are diverted to the City's combined wastewater treatment plant, located near South Land Park Drive and 35th Avenue, which only provides primary treatment. Heavy storm (flows exceed

190 mgd) can exceed the capacity of both treatment plants and overflows are diverted to Pioneer Reservoir for storage.

SOLID WASTE

The City *of* Sacramento, Department *of* public works, Solid Waste Division collects the solid waste in the project vicinity and takes it to the Sacramento Recycling and Transfer Station, located at Fruitridge Boulevard and Florin Perkins Road. BLT Enterprise *of* Sacramento Inc., sorts the waste for recyclables and hauls the remainder to the Lockwood Landfill, in Nevada.

4.12.2 STANDARDS OF SIGNIFICANCE

The Proposed Project is considered to result in a significant impact if one of the following were to occur:

- Disrupt communication systems; or
- Substantially degrade water quality; or
- Require additional water supplies; or
- Generate wastewater or storm water that would exceed the capacity of the CSS; or
- Require substantial additions to the regional solid waste disposal system.

4.12.3 IMPACT ANALYSIS

QUESTIONS A-D

The Proposed Project consists of the addition of on-street bikeways to existing circulation infrastructure, and paved off-street bikeways. Both of these actions do not require the need for new systems or supplies, or substantial alterations to the local communication, water treatment and distribution, and sewer or septic systems. These issues are considered less than significant and will not be further discussed in the EIR.

QUESTIONS E

The construction and paving of off street bikeways would result in a small increase in impervious surfaces, which would likely result in a slight increase in peak stormwater flows. However, construction of bikeways will conform to the design standards outlined in Chapter 9 of the 2010 City/County Bikeway Master Plan, which outlines the methods to be used during construction of bikeways to ensure that surface drainage will be adequately dissipated, thus resulting in impacts that are considered less than significant and will not be further discussed in the EIR.

QUESTION F

The Proposed Project is not expected to generate solid wastes. Impacts from the Proposed Project on this issue are considered less than significant and will not be further discussed in the EIR.

4.12.4 FINDINGS

The Proposed Project would result in less-than-significant impacts to utilities.

4.13 AESTHETICS, LIGHT AND GLARE

Question: Would the proposal?		*Potentially Significant Impact*	*Potentially Significant Unless Mitigated*	*Less than Significant Impact*
a)	Affect a scenic vista or adopted view corridor?	☐	☐	☒
b)	Have a demonstrable negative aesthetic effect?	☐	☐	☒
c)	Create light or glare?	☐	☐	☒
d)	Create shadows on adjacent property?	☐	☐	☒

AESTHETICS DISCUSSION

4.13.1 SETTING

The Proposed Project includes the addition of new on- and off- street bikeway facilities throughout the City of Sacramento. All bikeway construction will conform to the design standards outlined in Chapter 9 of the 2010 City/County Bikeway Master Plan. Applicable Chapter 9 design standards are outlined below:

LANDSCAPING

The guidelines presented here are general design considerations applicable to bicycle paths. The function of a path as a commuter route, recreation route, or multi-purpose (and multi-user trail) will make some of the criteria more or less relevant:

a. Alignment:

(1) Paths should follow natural topography where possible to avoid monotony for the cyclist and to minimize the visual contrast between the path and its environment. On utility paths, the directness of the route should not, however, be compromised.

(2) The changing alignment of the path and its relationship with existing trees and other elements can be used to emphasize views, provide directional cues and generally give the cyclist a more pleasant and informative journey.

(3) The path alignment should not have cyclists looking directly into the rising or setting sun reducing their ability to see other cyclists and potential hazards.

b. Plant Materials:

(1) Planting should provide protection from strong crosswinds.

(2) The location of planting groups should permit a clear view of the pathway ahead and particularly areas where pedestrians may cross or other cyclists may enter the path.

(3) Plantings should provide visual definition of the path alignment, intersection points, places of visual interest, or potential conflict.

(4) Planting styles and densities should be used to restrict entry to the path system to designated points rather than uncontrolled entry in places, which may create a hazard.

(5) Plant species should have a root structure which will not damage the path surface; plant species with this potential should be set back from the path.

(6) Plantings should be placed to provide shade for part of the day only, preferably afternoon. Moisture retention caused by permanent shade may soften the path surface. Afternoon shade allows the path to warm on cold mornings and provides protection during the warmest part of the day.

(7) Plantings should be used to filter direct sunlight that may have a blinding effect; e.g., where a path alignment is toward the setting sun.

(8) When plantings overhang a path, the minimum overhead clearance of 8 feet must be maintained.

(9) Plant species should not have spikes, be sticky or have the potential to injure cyclists who may fall off bicycles. Plants, which require pruning that results in hard pointed pruned branches, should not be used. Plants should be pruned to the International Society of Arboriculture Pruning Standards.

(10) Plants should not drop flowers or fruit which may cause the path to be slippery or thorns which puncture tires. Also, plants that have brittle branch characteristics should not be planted adjacent to paths.

(11) Planting setbacks should allow cyclists to carry out the occasional pathside repair.

(12) Plantings should be used to separate the path from visually undesirable or distracting elements such as drains, roads, industrial sites, etc. and to separate residential and private areas from the 'cyclethoroughfare'.

(13) Plantings should represent the indigenous natural character of the area through which the path passes or, alternatively, represent an existing and visually distinct cultural character which may include exotic species and manmade elements.

d. Environmental Quality:

(3) Pleasantness. The path landscape and alignment should present to the user, through views or planting, the most attractive aspects of the environment through which it passes, and provide the most comfortable journey possible for the cyclist. Cycling should be made a pleasurable alternative to other transport modes.

4.13.2 STANDARDS OF SIGNIFICANCE

The Proposed Project is considered to result in a significant impact if negative aesthetic effects, including light, glare, or shadows affect the project area, or if a scenic view or adopted view corridor is negatively affected.

4.13.3 IMPACT ANALYSIS

QUESTIONS A-C

One goal of the City's Bikeway Master Plan Update is to develop a bikeway system which incorporates aesthetics and the historical characteristics of the Sacramento area. The Proposed Project would allow more of an opportunity for neighborhoods to enjoy the aesthetic value of their surroundings and would therefore have a positive effect. No structures that emit light would be built for the Proposed Project. Therefore the Proposed Project would not result in a significant impact due to light and glare.

QUESTION D

There are no buildings or facilities included in the Proposed Project that would result in casting shadows on adjacent properties. Shadow impacts from the Proposed Project are considered less than significant and will not be further discussed in the EIR.

4.13.4 FINDINGS

The Proposed Project would result in a less than significant impact on aesthetics, light and glare.

4.14 CULTURAL RESOURCES

Question: Would the proposal?		Potentially Significant Impact	Potentially Significant Unless Mitigated	Less than Significant Impact
a)	Disturb paleontological resources?	☐	☐	☒
b)	Disturb archaeological resources?	☐	☐	☒
c)	Affect historical resources?	☐	☐	☒
d)	Have the potential to cause a physical change that would affect unique ethnic cultural values?	☐	☐	☒
e)	Restrict existing religious or sacred uses within the potential impact area?	☐	☐	☒

CULTURAL RESOURCES DISCUSSION

4.14.1 SETTING

The Sacramento Valley was home to significant populations of Native Americans prior to European settlement. Two distinct language groups, the Nisenan and the Plains Miwok inhabited the lower portion of the Valley. Prehistoric cultural resources include the evidence and remains of Native American subsistence activities such as, plant collection, hunting, fishing, and the fabrication of household items.

Significant cultural resources are associated with the development of Sacramento as a Euro-American settlement in the early 19th century and its subsequent role as a gold-rush era trade center and its emergence as California's state capitol. Historic cultural resources include buildings, structures, roadwork, earthwork, and artifacts dating from these periods. Cultural resource inventories were conducted in the general area of the Proposed Project during the preparation of the Sacramento General Plan Update EIR. Cultural resource inventories identify previously located prehistoric resources. Based on the location of identified resources, general areas of sensitivity can be delineated on maps. Sensitivity maps are useful tools for indicating areas where cultural resources are likely to be located and where further study, including field surveys, may be required. However, because sensitivity maps indicate only broad areas where specific resources have previously been uncovered, they should not be used for detailed planning purposes (City of Sacramento 1987).

The North Natomas Community is within the jurisdiction of Reclamation District No. 1000. The district grants easements that allow bike trail construction adjacent to canals within the districts 10-foot right-of-way from the toe of the berm. The districts right-of-way consists of canal bed,

berm, and 10 feet from toe of berm. Reclamation Districts are authorized to reclaim land by the construction of levees, provide irrigation water, provide proper drainage facilities, and provide for the operation and maintenance of facilities and levees. Reclamation District 1000 was established on April 2, 1911 and is considered a historical resource (LAFCo, 2003).

4.14.2 STANDARDS OF SIGNIFICANCE

The Proposed Project is considered to result in a significant impact if one of the following were to occur:

- Loss or degradation of know or undiscovered prehistoric, archaeologic, or historic resources.
- Physical destruction, damage, or alteration of all or part of a historic property, as could occur if a site were subjected to direct construction impacts.
- Isolation of a historic property or alteration of the character of its setting when that character contributes to the property's cultural significance.

4.14.3 IMPACT ANALYSIS

QUESTION A-C

Undiscovered archaeological or historical resources could potentially be disturbed by further excavation during construction of the Proposed Project. If subsurface archaeological or historical remains (including unusual amounts of bones, stones, or shells) are discovered during excavation or construction of the site, work shall stop immediately and a qualified archaeologist shall be consulted to develop, if necessary, further mitigation measures to reduce any archaeological impact to a less-than-significant level. Pursuant to State Health and Safety Code §7050.5(c) and State Public Resources Code §5097.98, If human bone or bone of unknown origin is found during construction, all work shall stop in the vicinity of the find and the Solano County Coroner shall be contacted immediately. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission who shall notify the person it believes to be the most likely descendant. The most likely descendant shall work with the contractor to develop a program for reinternment of the human remains and any associated artifacts. No additional work is to take place within the immediate vicinity of the find until the identified appropriate actions have been implemented.

QUESTION D-E

Since the precise location of the bikeway alignments is unknown at this time, project specific analysis of unique cultural values or existing religious or sacred uses that apply to the Proposed Project site will be done to ensure that on- and off- street bikeway alignments do not potentially disturb or restrict access to sacred or unique religious uses.

4.14.4 FINDINGS

No significant impacts are expected to result from the Proposed Project. This issue will not be addressed within the EIR.

4.15 RECREATION

Question: Would the proposal result in impacts to?	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less than Significant Impact
a) Increase the demand for neighborhood or regional parks or other recreational facilities?	☐	☐	☒
b) Affect existing recreational opportunities?	☐	☐	☒

RECREATION DISCUSSION

4.15.1 SETTING

The Proposed Project includes the establishment of new on-and off-street bikeway alignments that builds-on and modifies the existing established system, thereby allowing the City to more fully attain existing bikeway goals and policies.

4.15.2 STANDARDS OF SIGNIFICANCE

The Proposed Project is considered to result in a significant impact if one of the following were to occur:

- Significantly increase the demand for neighborhood parks or recreational facilities.
- Negatively affect existing recreational opportunities.

4.15.3 IMPACT ANALYSIS

QUESTION A-B

As discussed above, the Proposed Project is located City Wide. New recreational facilities will not be required as the result of the Proposed Project, but rather, the Proposed Project constitutes improvements and additions to existing recreation facilities within the City of Sacramento. The Proposed Project will result in a beneficial impact to City recreation resources. Therefore, a less than significant impact is expected.

4.15.4 FINDINGS

The Proposed Project would result in less-than-significant impacts to recreation facilities. This issue will not be addressed within the EIR.

4.16 MANDATORY FINDINGS

	Potentially Significant Impact	*Potentially Significant Unless Mitigated*	*Less than Significant Impact*
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐
b) Does the project have the potential to achieve short-term, to the disadvantage of long-term environmental goals?	☐	☐	☒
c) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☐	☒
d) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? Disturb paleontological resources?	☐	☒	☐

MANDATORY FINDINGS OF SIGNIFICANCE DISCUSSION

QUESTION A

As discussed in the preceding sections, the Proposed Project, unless mitigated, may have the potential to significantly degrade the quality of the environment.

QUESTION B

As discussed in the preceding sections, the Proposed Project does not have the potential to achieve short-term, to the disadvantage of long-term goals.

QUESTION C

When impacts are considered along with, or in combination with other impacts, the project-related impacts are less than significant. The Proposed Project will not add substantially to any cumulative effects.

QUESTION D

The Proposed Project may have the potential to cause an adverse effect on nearby residences. This is considered a potentially significant impact unless mitigated.

4.15.4 FINDINGS

The Proposed Project may significantly degrade the environment and have the potential to effect nearby residences. This issue will be addressed in the applicable sections of the EIR.

SECTION 5.0

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

SECTION 5.0

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below potentially would be affected by this project.

- ☒ Land Use and Planning
- ☐ Population and Housing
- ☐ Geological Problems
- ☐ Water
- ☒ Air Quality
- ☒ Transportation/Circulation
- ☒ Biological Resources
- ☐ Energy and Mineral Resources
- ☐ None Identified
- ☐ Hazards
- ☒ Noise
- ☐ Public Services
- ☐ Utilities and Service Systems
- ☐ Aesthetics
- ☐ Cultural Resources
- ☐ Recreation
- ☒ Mandatory Findings of Significance

SECTION 6.0

DETERMINATION

SECTION 6.0

DETERMINATION

On the basis of the initial evaluation:

☐ I find that the Proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the Proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because the project-specific mitigation measures described in Section IV have been added to the project. A NEGATIVE DECLARATION will be prepared.

☒ I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

Signature	Date
Printed Name	For

SECTION 7.0

LIST OF PREPARERS

SECTION 7.0
LIST OF PREPARERS

7.1 CITY OF SACRAMENTO

Dana Allen, Environmental Project Manager, Environmental Planning Services

Ed Cox, Project Manager, Public Works Department

Suzan Tobin, Engineering Technician II, Public Works Department

7.2 CONSULTANTS

Analytical Environmental Services

Project Manager:	Joe Broadhead
Technical Staff:	Susan Engelke Paul Garcia Dana Hirschberg John Howe Shelley McGinnis Larry Wymer

Bollard and Brennan

Noise Consultant:	Paul Bollard

CCS, Planning and Engineering, Inc.

Air Quality Consultant:	Wayne Shijo

SECTION 8.0

BIBLIOGRAPHY

SECTION 8.0

BIBLIOGRAPHY

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APPENDIX B

NOTICE OF PREPARATION (NOP) AND PUBLIC COMMENTS

PLANNING &
BUILDING DEPARTMENT

ENVIRONMENTAL PLANNING
916-264-5381
FAX 916-264-7185

CITY OF SACRAMENTO
CALIFORNIA

1231 I STREET
SUITE 300
SACRAMENTO, CA
95814-2904

DATE: May 23, 2003

TO: INTERESTED PERSONS

FROM: CITY OF SACRAMENTO

SUBJECT: NOTICE OF PREPARATION FOR THE BIKEWAY MASTER PLAN ENVIRONMENTAL IMPACT REPORT

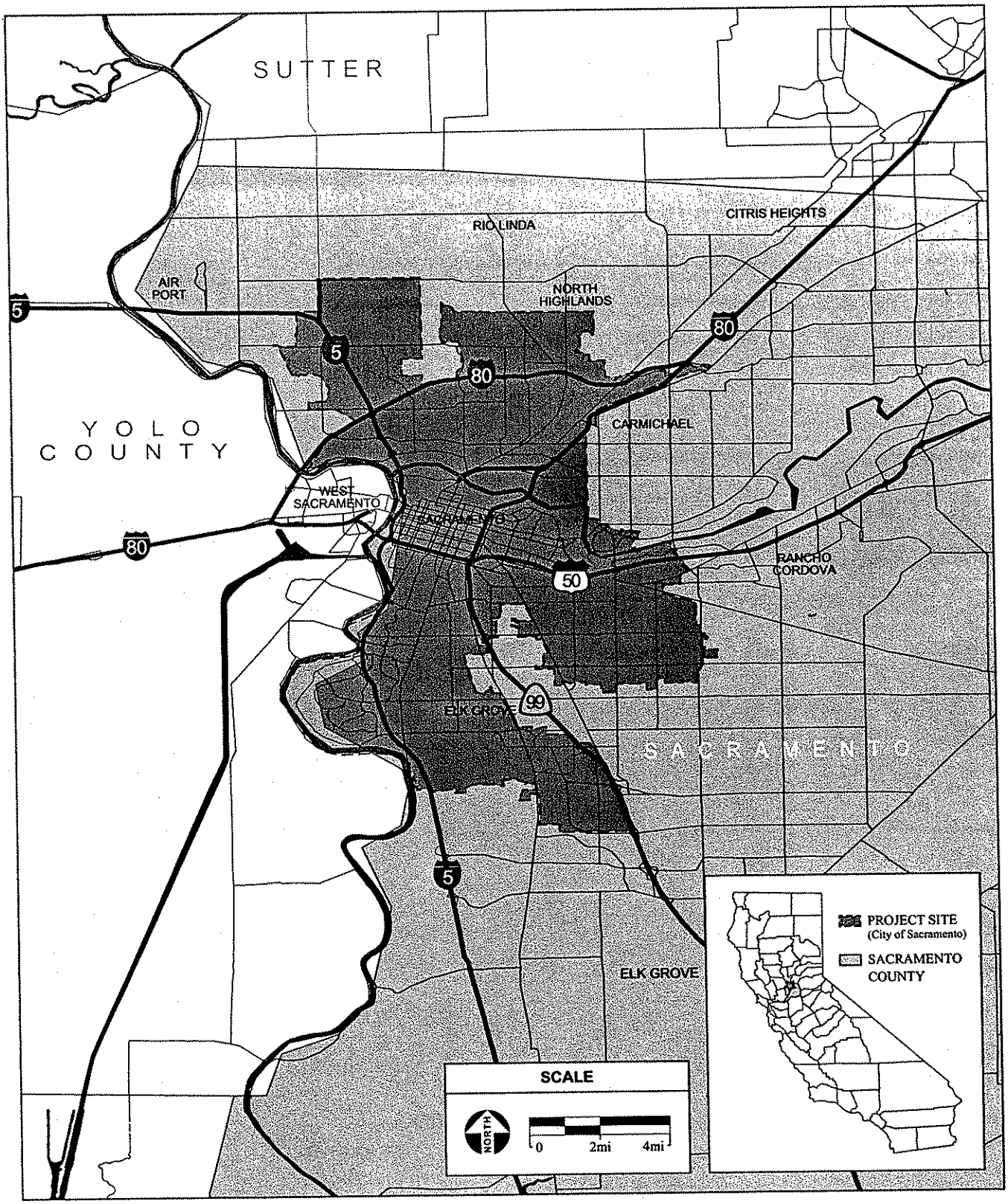
PUBLIC REVIEW PERIOD: May 23, 2003 – June 23, 2003

The City of Sacramento's Planning and Building Department, Environmental Planning Services is the lead agency for the preparation of an Environmental Impact Report (EIR) pursuant to the California Environmental Quality Act (CEQA) for the proposed Bikeway Master Plan Amendment for Developing Areas Project (Proposed Project).

CEQA Section 15082 states that once a decision is made to prepare an EIR, the Lead Agency (the City of Sacramento) must prepare a Notice of Preparation (NOP) to inform all responsible agencies that an EIR will be prepared. The purpose of the NOP is to provide Responsible Agencies and interested persons with sufficient information describing the Proposed Project and the potential environmental effects to enable them to make a meaningful response as to the scope and content of the information to be included in the EIR.

Project Site

The Proposed Project consists of amendments to the on- and off- street bikeways throughout the City of Sacramento **(Figure 1)**. As such, the Proposed Project site is Citywide. A map showing the locations of the proposed modifications is presented in **Figure 2**.



SOURCE: ESRI Data, 2001 ; AES, 2003

Figure 1
Regional Location Map

SOURCE: City of Sacramento, 2003 ; AES, 2003

Figure 2
Site Plan

Project Background

The currently adopted 2010 Sacramento City/County Bikeway Master Plan is a programmatic document used as a guide for the placement of on-street and off-street bikeways throughout the City and parts of the County. Some portions of the City have undergone significant changes to the infrastructure and land use since the adoption of the plan in 1991. The current plan is no longer up to date in the developing areas of the City, most notably in North Natomas and South Sacramento. The Proposed Project recommends revised and new bikeways in theses developing areas with the intent to create a comprehensive bikeway network.

Project Description

The Proposed Project includes an amendment to the existing 2010 Sacramento City/County Bikeway Master Plan. The current amendment includes the placement of new alignments throughout the various communities of the City. The Proposed Project also includes the removal of several proposed alignments within the North Natomas Community Plan area. New and/or modified on- and off-street alignments are proposed for the following communities:

1. Airport/Meadowview,
2. South Sacramento,
3. South Natomas,
4. North Natomas,
5. East City – McKinley Park,
6. College Greens, and
7. Tahoe Park.

The existing policy framework relating to the establishment, use and maintenance of bikeways established in the 2010 Bikeway Master Plan and other City planning documents is assumed to continue with little or no change.

The Proposed Project includes the establishment of new on-and off-street bikeway alignments that builds-on and modifies the existing established system, thereby allowing the City to more fully attain existing bikeway goals and policies. The new or modified alignments may involve crossings of canals, roadways, or other obstacles resulting in potential effects associated with sensitive environmental features (e.g., biological, cultural, traffic, etc.). The alignments proposed are to be considered at the program level. Further refinement of the alignments will occur in the future as funding for individual segments becomes available. As such, current environmental review will be done at the program level, with follow-up detailed environmental review conducted in the future.

Environmental Effects

Based upon preliminary evaluation of the Proposed Project components, the City of Sacramento Planning and Building Department's Planning Environmental Services is undertaking the development

of an EIR. After a preliminary review of the project information, primary issues of concern have been identified and may include but are not limited to:

- *Land Use Consistency and Compatibility* – The EIR will address the consistency of Proposed Project with the goals and policies of the existing Bikeway Master Plan, City of Sacramento General Plan and Zoning Ordinance, and Sacramento River Parkway Plan. Primary issues include consistency of the new and modified alignments with established goals and policies of the plans, as well as compatibility issues with adjacent land uses. The analysis presented in the EIR will provide the City of Sacramento with sufficient information in order to make a consistency finding with the adopted policies of the City.

- *Safety and Transportation* – The Safety and Transportation Analysis of the EIR will address safety and traffic impacts associated with adoption of the plan amendments. Issues addressed within this section of the document will focus on cyclist safety and conflicts with traffic. The analysis will provide a discussion of shared use of roadways, conflicts with motorists, and the causes and frequency of bicycle accidents in the Sacramento area. The analysis will also address the consistency of the Bikeway Master Plan Amendment with local and regional transportation plans and programs.

- *Air Quality* – The Air Quality analysis will be structured somewhat differently than traditional development projects. Detailed modeling will not be required for the Proposed Project given that reduced pollutant emissions is a major goal of the project. With that said, a qualitative analysis will need to be undertaken to address the potential intersection carbon monoxide air quality effects to bicycle riders.

- *Noise/Vibration* – As is the case with air quality, noise will be treated somewhat differently than traditional developments. Potential noise impacts resulting from the Proposed Project would be in the form of construction activities and use of new bikeways in noise sensitive areas.

- *Biological Resources* – Development of proposed bikeways within existing roadway right of ways (on-street bikeways) is not expected to result in biological effects. Off-street alignments; however, could potentially result in temporary and permanent effects to biological resources. The EIR analysis will address these issues.

Discussion of Growth Inducing and Cumulative Impacts

In accordance with Section 15130 of the CEQA Guidelines, an analysis of cumulative impacts will be undertaken and discussed in the EIR. In addition, pursuant to Section 15126 (d) of the CEQA Guidelines, the EIR will also address the potential for growth-inducing impacts, if any.

Discussion of Alternatives

Section 15126.6(a) of the CEQA Guidelines requires that an EIR describe a range of reasonable alternatives for the project. The EIR will evaluate the comparative merits of the alternatives, including the "No Project" alternative {Section 15126(e)(1) et seq.}. All alternatives have not yet been fully identified and will be proposed and analyzed during the course of the preparation of the Draft EIR. The proposed and any additional alternatives may be determined by a combination of input from the public, City Staff, and environmental Consultants.

To ensure that the full range of issues and alternatives related to the Proposed Project are adequately addressed and that all significant issues are identified, comments and suggestions are invited from all interested parties. Written comments or questions concerning the proposed EIR should be directed to the following address by **5:00 p.m. on Monday June 23, 2003.**

City of Sacramento, Planning and Building Department,
Environmental Planning Services
ATTN: Dana Allen
1231 I Street, Room 300
Sacramento, CA 95814
(916) 264-2857
(916) 264-7185 (fax)

APPENDIX B

COMMENTS RECEIVED ON THE NOTICE OF PREPARATION

Comments on the notice of preparation of an EIR were received from the following agencies and individuals.

Letter	Date	Agency/Individual
1	May 28, 2003	Art Smith, Sacramento Air Quality Management District
2	June 17, 2003	Walt Seifert, Director Sacramento Area Bicycle Advocates (SABA)
3	June 17, 2003	Kevin Mulderrig, Z'Berg Park Neighborhood Association
4	June 18, 2003	Jeffery Pulverman, California Department of Transportation District 3

APPENDIX C

USFWS SPECIES LIST

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W2605
Sacramento, California 95825

IN REPLY REFER TO:
1-1-03-SP-2234

June 26, 2003

Mr. John Howe
Associate Biologist
Analytical Environmental Services
2021 N Street, Suite 200
Sacramento, California 95814

Subject: Species List for City of Sacramento Bikeway Master Plan Amendment

Dear Mr. Howe:

We are sending the enclosed list in response to your request for information about endangered and threatened species (Enclosure A). The list covers the U.S. Geological Survey 7.5 minute quad(s) where your project is planned.

Please read Important Information About Your Species List (Enclosure B). It explains how we made the list and describes your responsibilities under the Endangered Species Act. Contact Justin Ly at (916) 414-6645, if you have any questions about the attached list or your responsibilities under the Endangered Species Act.

For the fastest response to species list requests, address them to the attention of Species Lists at this address. You may fax requests to (916) 414-6712 or 414-6713.

Sincerely,

for Chris Nagano, Chief
Endangered Species Division

Enclosures

Critical habitat, Central Valley fall/late fall-run chinook, *Oncorhynchus tshawytscha* (C) NMFS

Species of Concern

Mammals

Pacific western big-eared bat, *Corynorhinus (=Plecotus) townsendii townsendii* (SC)

small-footed myotis bat, *Myotis ciliolabrum* (SC)

long-legged myotis bat, *Myotis volans* (SC)

Yuma myotis bat, *Myotis yumanensis* (SC)

San Joaquin pocket mouse, *Perognathus inornatus* (SC)

Birds

tricolored blackbird, *Agelaius tricolor* (SC)

western burrowing owl, *Athene cunicularia hypugaea* (SC)

oak titmouse, *Baeolophus inornatus* (SLC)

Aleutian Canada goose, *Branta canadensis leucopareia* (D)

Swainson's hawk, *Buteo Swainsoni* (CA)

ferruginous hawk, *Buteo regalis* (SC)

Lawrence's goldfinch, *Carduelis lawrencei* (SC)

Vaux's swift, *Chaetura vauxi* (SC)

white-tailed (=black shouldered) kite, *Elanus leucurus* (SC)

little willow flycatcher, *Empidonax traillii brewsteri* (CA)

prairie falcon, *Falco mexicanus* (SC)

American peregrine falcon, *Falco peregrinus anatum* (D)

greater sandhill crane, *Grus canadensis tabida* (CA)

loggerhead shrike, *Lanius ludovicianus* (SC)

marbled godwit, *Limosa fedoa* (SC)

Lewis' woodpecker, *Melanerpes lewis* (SC)

long-billed curlew, *Numenius americanus* (SC)

Nuttall's woodpecker, *Picoides nuttallii* (SLC)

white-faced ibis, *Plegadis chihi* (SC)

bank swallow, *Riparia riparia* (CA)

rufous hummingbird, *Selasphorus rufus* (SC)

Reptiles

northwestern pond turtle, *Clemmys marmorata marmorata* (SC)

California horned lizard, *Phrynosoma coronatum frontale* (SC)

Amphibians

western spadefoot toad, *Spea hammondii* (SC)

Fish

Invertebrates

Critical habitat, vernal pool invertebrates, *See Federal Register 67:59883* (PX)

Plants

Critical habitat, vernal pool plants, *See Federal Register 67:59883* (PX)

Candidate Species

Fish

green sturgeon, *Acipenser medirostris* (C)

Central Valley fall/late fall-run chinook salmon, *Oncorhynchus tshawytscha* (C) NMFS

Species of Concern

Mammals

Pacific western big-eared bat, *Corynorhinus (=Plecotus) townsendii townsendii* (SC)

small-footed myotis bat, *Myotis ciliolabrum* (SC)

long-legged myotis bat, *Myotis volans* (SC)

Yuma myotis bat, *Myotis yumanensis* (SC)

San Joaquin pocket mouse, *Perognathus inornatus* (SC)

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tricolored blackbird, *Agelaius tricolor* (SC)

western burrowing owl, *Athene cunicularia hypugaea* (SC)

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Aleutian Canada goose, *Branta canadensis leucopareia* (D)

Swainson's hawk, *Buteo Swainsoni* (CA)

ferruginous hawk, *Buteo regalis* (SC)

Lawrence's goldfinch, *Carduelis lawrencei* (SC)

Vaux's swift, *Chaetura vauxi* (SC)

white-tailed (=black shouldered) kite, *Elanus leucurus* (SC)

little willow flycatcher, *Empidonax traillii brewsteri* (CA)

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greater sandhill crane, *Grus canadensis tabida* (CA)

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Lewis' woodpecker, *Melanerpes lewis* (SC)

long-billed curlew, *Numenius americanus* (SC)

Nuttall's woodpecker, *Picoides nuttallii* (SLC)

white-faced ibis, *Plegadis chihi* (SC)

bank swallow, *Riparia riparia* (CA)

rufous hummingbird, *Selasphorus rufus* (SC)

Proposed Species

Birds

mountain plover, *Charadrius montanus* (PT)

Amphibians

California tiger salamander, *Ambystoma californiense* (PT)

Candidate Species

Fish

green sturgeon, *Acipenser medirostris* (C)

Central Valley fall/late fall-run chinook salmon, *Oncorhynchus tshawytscha* (C) NMFS

Species of Concern

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Aleutian Canada goose, *Branta canadensis leucopareia* (D)

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ferruginous hawk, *Buteo regalis* (SC)

Lawrence's goldfinch, *Carduelis lawrencei* (SC)

Vaux's swift, *Chaetura vauxi* (SC)

white-tailed (=black shouldered) kite, *Elanus leucurus* (SC)

little willow flycatcher, *Empidonax traillii brewsteri* (CA)

prairie falcon, *Falco mexicanus* (SC)

American peregrine falcon, *Falco peregrinus anatum* (D)

greater sandhill crane, *Grus canadensis tabida* (CA)

loggerhead shrike, *Lanius ludovicianus* (SC)

Lewis' woodpecker, *Melanerpes lewis* (SC)

long-billed curlew, *Numenius americanus* (SC)

Nuttall's woodpecker, *Picoides nuttallii* (SLC)

white-faced ibis, *Plegadis chihi* (SC)

vernal pool tadpole shrimp, *Lepidurus packardi* (E)

Proposed Species

Birds

mountain plover, *Charadrius montanus* (PT)

Amphibians

California tiger salamander, *Ambystoma californiense* (PT)

Candidate Species

Birds

Western yellow-billed cuckoo, *Coccyzus americanus occidentalis* (C)

Fish

green sturgeon, *Acipenser medirostris* (C)

Central Valley fall/late fall-run chinook salmon, *Oncorhynchus tshawytscha* (C) NMFS

Critical habitat, Central Valley fall/late fall-run chinook, *Oncorhynchus tshawytscha* (C) NMFS

Species of Concern

Mammals

Pacific western big-eared bat, *Corynorhinus (=Plecotus) townsendii townsendii* (SC)

small-footed myotis bat, *Myotis ciliolabrum* (SC)

long-legged myotis bat, *Myotis volans* (SC)

Yuma myotis bat, *Myotis yumanensis* (SC)

San Joaquin pocket mouse, *Perognathus inornatus* (SC)

Birds

tricolored blackbird, *Agelaius tricolor* (SC)

western burrowing owl, *Athene cunicularia hypugaea* (SC)

oak titmouse, *Baeolophus inornatus* (SLC)

Aleutian Canada goose, *Branta canadensis leucopareia* (D)

Swainson's hawk, *Buteo Swainsoni* (CA)

ferruginous hawk, *Buteo regalis* (SC)

Lawrence's goldfinch, *Carduelis lawrencei* (SC)

Vaux's swift, *Chaetura vauxi* (SC)

white-tailed (=black shouldered) kite, *Elanus leucurus* (SC)

little willow flycatcher, *Empidonax traillii brewsteri* (CA)

prairie falcon, *Falco mexicanus* (SC)

American peregrine falcon, *Falco peregrinus anatum* (D)

greater sandhill crane, *Grus canadensis tabida* (CA)

loggerhead shrike, *Lanius ludovicianus* (SC)

vernal pool fairy shrimp, *Branchinecta lynchi* (T)
valley elderberry longhorn beetle, *Desmocerus californicus dimorphus* (T)
vernal pool tadpole shrimp, *Lepidurus packardi* (E)

Proposed Species

Birds

mountain plover, *Charadrius montanus* (PT)

Amphibians

California tiger salamander, *Ambystoma californiense* (PT)

Candidate Species

Fish

green sturgeon, *Acipenser medirostris* (C)
Central Valley fall/late fall-run chinook salmon, *Oncorhynchus tshawytscha* (C) NMFS
Critical habitat, Central Valley fall/late fall-run chinook, *Oncorhynchus tshawytscha* (C) NMFS

Species of Concern

Mammals

Pacific western big-eared bat, *Corynorhinus (=Plecotus) townsendii townsendii* (SC)
small-footed myotis bat, *Myotis ciliolabrum* (SC)
long-legged myotis bat, *Myotis volans* (SC)
Yuma myotis bat, *Myotis yumanensis* (SC)
San Joaquin pocket mouse, *Perognathus inornatus* (SC)

Birds

tricolored blackbird, *Agelaius tricolor* (SC)
western burrowing owl, *Athene cunicularia hypugaea* (SC)
oak titmouse, *Baeolophus inornatus* (SLC)
Aleutian Canada goose, *Branta canadensis leucopareia* (D)
Swainson's hawk, *Buteo Swainsoni* (CA)
ferruginous hawk, *Buteo regalis* (SC)
Lawrence's goldfinch, *Carduelis lawrencei* (SC)
Vaux's swift, *Chaetura vauxi* (SC)
white-tailed (=black shouldered) kite, *Elanus leucurus* (SC)
little willow flycatcher, *Empidonax traillii brewsteri* (CA)
prairie falcon, *Falco mexicanus* (SC)
American peregrine falcon, *Falco peregrinus anatum* (D)
greater sandhill crane, *Grus canadensis tabida* (CA)
loggerhead shrike, *Lanius ludovicianus* (SC)

ENCLOSURE A

Endangered and Threatened Species that May Occur in or be Affected by
Projects in the Area of the Following California Counties
Reference File No. Reference File No. 1-1-03-SP-2234
City of Sacramento Bikeway Master Plan Amendment
June 25, 2003

SACRAMENTO COUNTY

Listed Species

Mammals

riparian (San Joaquin Valley) woodrat, *Neotoma fuscipes riparia* (E) *

Birds

bald eagle, *Haliaeetus leucocephalus* (T)

Reptiles

giant garter snake, *Thamnophis gigas* (T)

Amphibians

California red-legged frog, *Rana aurora draytonii* (T)

Fish

Central Valley spring-run chinook salmon, *Oncorhynchus tshawytscha* (T) NMFS
Central Valley steelhead, *Oncorhynchus mykiss* (T) NMFS
Critical habitat, delta smelt, *Hypomesus transpacificus* (T)
Critical habitat, winter-run chinook salmon, *Oncorhynchus tshawytscha* (E) NMFS
Sacramento splittail, *Pogonichthys macrolepidotus* (T)
delta smelt, *Hypomesus transpacificus* (T)
winter-run chinook salmon, *Oncorhynchus tshawytscha* (E) NMFS

Invertebrates

Conservancy fairy shrimp, *Branchinecta conservatio* (E)
Critical habitat, valley elderberry longhorn beetle, *Desmocerus californicus dimorphus* (T)
delta green ground beetle, *Elaphrus viridis* (T)
valley elderberry longhorn beetle, *Desmocerus californicus dimorphus* (T)
vernal pool fairy shrimp, *Branchinecta lynchi* (T)
vernal pool tadpole shrimp, *Lepidurus packardi* (E)

Plants

Antioch Dunes evening-primrose, *Oenothera deltoides ssp. howellii* (E)
Sacramento Orcutt grass, *Orcuttia viscida* (E)
slender Orcutt grass, *Orcuttia tenuis* (T)
soft bird's-beak, *Cordylanthus mollis ssp. mollis* (E) *

Swainson's hawk, *Buteo Swainsoni* (CA)
bank swallow, *Riparia riparia* (CA)
black rail, *Laterallus jamaicensis coturniculus* (CA)
ferruginous hawk, *Buteo regalis* (SC)
greater sandhill crane, *Grus canadensis tabida* (CA)
little willow flycatcher, *Empidonax traillii brewsteri* (CA)
loggerhead shrike, *Lanius ludovicianus* (SC)
long-billed curlew, *Numenius americanus* (SC)
marbled godwit, *Limosa fedoa* (SC)
oak titmouse, *Baeolophus inornatus* (SLC)
red-breasted sapsucker, *Sphyrapicus ruber* (SC)
rufous hummingbird, *Selasphorus rufus* (SC)
tricolored blackbird, *Agelaius tricolor* (SC)
western burrowing owl, *Athene cunicularia hypugaea* (SC)
white-faced ibis, *Plegadis chihi* (SC)
white-tailed (=black shouldered) kite, *Elanus leucurus* (SC)

Reptiles

California horned lizard, *Phrynosoma coronatum frontale* (SC)
northwestern pond turtle, *Clemmys marmorata marmorata* (SC)
silvery legless lizard, *Anniella pulchra pulchra* (SC)
southwestern pond turtle, *Clemmys marmorata pallida* (SC)

Amphibians

foothill yellow-legged frog, *Rana boylii* (SC)
western spadefoot toad, *Spea hammondii* (SC)

Fish

Kern brook lamprey, *Lampetra hubbsi* (SC)
Pacific lamprey, *Lampetra tridentata* (SC)
longfin smelt, *Spirinchus thaleichthys* (SC)
river lamprey, *Lampetra ayresi* (SC)

Invertebrates

Antioch Dunes anthicid beetle, *Anthicus antiochensis* (SC)
California linderiella fairy shrimp, *Linderiella occidentalis* (SC)
Midvalley fairy shrimp, *Branchinecta mesovallensis* (SC)
Sacramento anthicid beetle, *Anthicus sacramento* (SC)
San Joaquin dune beetle, *Coelus gracilis* (SC)
curved-foot hygrotus diving beetle, *Hygrotus curvipes* (SC)

APPENDIX D

California Natural Diversity Database Report

California Department of Fish and Game
Natural Diversity Data Base
City of Sacramento Bikeway Master Plan Amendment
Quads: Sacramento East, Sacramento West, Florin, Taylor Monument, and Rio Linda

List of Elements and Status by Scientific Name

Scientific/Common Name	Federal/ State Status	Global/ State Rank	CNPS/ R-E-D	CDFG Status
Accipiter cooperii Cooper's hawk	None/ None	G5/ S3		SC
Agelaius tricolor tricolored blackbird	Species of Concern/ None	G2/ S2		SC
Archoplites interruptus Sacramento perch	Species of Concern/ None	G3/ S1		SC
Ardea alba great egret	None/ None	G5/ S4		
Ardea herodias great blue heron	None/ None	G5/ S4		
Athene cunicularia burrowing owl	Species of Concern/ None	G4/ S2		SC
Branchinecta lynchi vernal pool fairy shrimp	Threatened/ None	G2G3/ S2S3		
Branchinecta mesovallensis midvalley fairy shrimp	Species of Concern/ None	G2/ S2		
Buteo swainsoni Swainson's hawk	Species of Concern/ Threatened	G4/ S2		
Clemmys marmorata western pond turtle	None/ None	G3G4/ S3		SC
Clemmys marmorata marmorata northwestern pond turtle	Species of Concern/ None	G3G4T3 T4Q/ S3		SC
Desmocerus californicus dimorphus valley elderberry longhorn beetle	Threatened/ None	G3T2/ S2		

List of Elements and Status by Scientific Name

Scientific/Common Name	Federal/ State Status	Global/ State Rank	CNPS/ R-E-D	CDFG Status
Northern Hardpan Vernal Pool	None/ None	G3/ S3.1		
Nycticorax nycticorax black-crowned night heron	None/ None	G5/ S3		
Phalacrocorax auritus double-crested cormorant	None/ None	G5/ S3		SC
Pogonichthys macrolepidotus Sacramento splittail	Threatened/ None	G2/ S2		SC
Progne subis purple martin	None/ None	G5/ S3		SC
Riparia riparia bank swallow	Species of Concern/ Threatened	G5/ S2S3		
Sagittaria sanfordii Sanford's arrowhead	Species of Concern/ None	G3/ S3.2	1B/ 2-2-3	
Thamnophis gigas giant garter snake	Threatened/ Threatened	G2G3/ S2S3		

APPENDIX E

SUMMARY OF REGIONALLY OCCURRING SPECIAL-STATUS SPECIES

SUMMARY OF REGIONALLY OCCURRING SPECIAL-STATUS SPECIES REVIEW

BIKEWAY MASTER PLAN AMENDMENT

Scientific Name Common name	Regulatory Status USFWS/ CDFG/CNPS	General Habitat Description	Potential to Occur in Project Area?	Ideal Period of Identification
PLANTS				
Downingia pusilla Dwarf downingia	--/--/2	Vernal lake and pool margins in valley and foothill grasslands. Known to occur in the following Holland plant community types; vernal pools and valley and foothill grassland.	**Yes.** The project area does provide suitable habitat for this species.	March-May
Gratiola heterosepala Boggs lake hedge-hyssop	FSC/CE/1B	Clay soils within freshwater marshes and vernal pools. Known to occur in the following Holland plant community types; marshes and swamps and vernal pools.	**Yes.** The project area does provide suitable habitat for this species.	April- August
Hibiscus lasiocarpus Rose-mallow	--/--/2	Moist riverbanks and peat islands in sloughs, freshwater marsh. Known to occur in the following Holland plant community types; marshes and swamps.	**Yes.** The project area does provide suitable habitat for this species.	June-September
Juglans hindsii Northern California black walnut	FSC/--/1B	Deep alluvial soils near streams or creeks within riparian forest and woodland. Known to occur in the following Holland plant community types; riparian forest and riparian woodland.	**Yes.** The project area does provide suitable habitat for this species.	All year
Legenere limosa Legenere	FSC/--/1B	Found in vernal pool beds. Known to occur in the following Holland plant community types; vernal pools.	**Yes.** The project area does provide suitable habitat for this species.	April-June
Sagittaria sanfordii Sanford's arrowhead	FSC/--/1B	In standing or slow-moving freshwater ponds, marshes, and ditches. Known to occur in the following Holland plant community types marshes and swamps.	**Yes.** The project area does provide suitable habitat for this species.	May-October
ANIMALS				
Invertebrates				
Anthicus antiochensis Antioch Dunes anthicid beetle	FSC/--/--	Known only from the Antioch dunes.	**No.** The project area does not provide suitable habitat for this species.	Insufficient data
Anthicus sacramento Sacramento anthicid beetle	FSC/--/--	Inhabit sand slip-faces on dunes among bamboo and willow in the Sacramento-San Joaquin Delta	**No.** The project area does not provide suitable habitat for this species.	Insufficient data

Scientific Name Common name	Regulatory Status USFWS/ CDFG/CNPS	General Habitat Description	Potential to Occur in Project Area?	Ideal Period of Identification
Oncorhynchus tshawytscha Winter-run Chinook salmon	FE/CE/--	Sacramento and San Joaquin Rivers and their tributaries	**Yes.** The project area does provide suitable habitat for this species.	December-June
Pogonichthys macrolepidotus Sacramento splittail	FT/CSC/--	Sacramento-San Joaquin Delta and associated marshes. Requires flooded vegetation for spawning and juvenile foraging habitat.	**No.** The project area does not provide suitable habitat for this species.	All year
Spirinchus thaleichthys Longfin smelt	FSC/CSC/--	Found in all major bays and estuaries from San Francisco Bay northward. Also known from portions of the Sacramento/San Joaquin Delta.	**No.** The project area does not provide suitable habitat for this species.	February-April (period of time found in the Sacramento/San Joaquin Delta for spawning)
Amphibians				
Ambystoma californiense California tiger salamander	FC/CSC/--	Breeds in vernal pools and ponds of grassland and open woodland of low hills and valleys. Will utilize burrows for refugia.	**Yes.** The project area does provide suitable habitat for this species.	November-February (adults) March 15-May15 (larvae)
Rana aurora draytonii California red-legged frog	FT/CSC/--	Lowlands and foothills in or near permanent or late-season sources of deep water with dense, shrubby, or emergent vegetation.	**No.** The project area does not provide suitable habitat for this species.	May-November
Spea hammondii Western spadefoot toad	FSC/CSC/--	Occurs primarily in grassland habitats, but can be found in valley and foothill woodlands. Vernal pools are essential for breeding and egg laying.	**Yes.** The project area does provide suitable habitat for this species.	November-March
Reptiles				
Clemmys marmorata marmorata Northwestern pond turtle	FSC/CSC/--	Requires aquatic habitats with suitable basking sites. Nest sites most often characterized as having gentle slopes (<15%) with little vegetation or sandy banks.	**Yes.** The project area does provide suitable habitat for this species.	All year
Phrynosoma coronatum frontale California horned lizard	FSC/CSC/--	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes.	**No.** The project area does not provide suitable habitat for this species.	April-October
Thamnophis gigas Giant garter snake	FT/CT/--	Generally inhabits marshes, sloughs, ponds, slow-moving streams, ditches, and rice fields which have water from early spring through mid-fall, emergent vegetation (such as cattails and bulrushes), open areas for sunning, and high ground for hibernation and escape cover.	**Yes.** The project area does provide suitable habitat for this species.	March-October
Birds				

Scientific Name Common name	Regulatory Status USFWS/ CDFG/CNPS	General Habitat Description	Potential to Occur in Project Area?	Ideal Period of Identification
Empidonax traillii brewsteri (nesting) Little willow flycatcher	FSC/--/--	Inhabits wet meadow and riparian montane habitats.	**No.** The project area does not provide suitable habitat for this species.	May-August
Falco mexicanus Prairie falcon	--/CSC/--	Forages in open grasslands. Requires cliff ledges for cover and nesting.	**No.** The project area does not provide suitable habitat for this species.	All year
Falco peregrinus anatum American perigrine falcon	FD/CE/--	Forages in marshes and grasslands. Nesting habitat includes high protected cliffs and ledges, also utilizes human-made structures.	**No.** The project area does not provide suitable habitat for this species.	All year
Grus canadensis tabida Greater sandhill crane	--/CT/--	Nests in wetland habitats in northeastern California; winters in the Central Valley. Prefers grain fields within 4 miles of a shallow body of water.	**No.** The project area does not provide suitable habitat for this species.	September-April (in Central California)
Haliaeetus leucocephalus Bald eagle	FT/CE/--	Found near ocean shorelines, lakes, reservoirs, river systems, and coastal wetlands.	**Yes.** The project area does provide suitable habitat for this species.	All year
Lanius ludovicianus Loggerhead shrike	FSC/CSC/--	Found in a variety of habitats with open areas, available perches, and dense shrubs for nesting	**Yes.** The project area does provide suitable habitat for this species.	March-August
Limosa fedoa Marbled godwit	FSC/--/--	Found on beaches, mudflats, and shallow pools. Nest near grassy, saline marshes.	**No.** The project area does not provide suitable habitat for this species.	October-March
Melanerpes lewis (nesting) Lewis' woodpecker	FSC/--/--	Open oak savannahs, broken deciduous, and coniferous habitats. Requires open habitats with scattered trees and snags with cavities.	**No.** The project area does not provide suitable habitat for this species.	May-July
Numenius americanus Long-billed curlew	FSC/CSC/--	Breeding season habit includes elevated interior grasslands, adjacent to lakes and marshes. Winter habitat includes grasslands or borders of marshes at low elevations in interior valleys.	**No.** The project area does not provide suitable habitat for this species.	April-September
Phalacrocorax auritus (rookery site) Double-crested cormorant	--/CSC/--	Coastal cliffs and offshore islands along the coast from Marin Co. south to La Jolla, San Diego Co., and in interior lakes and swamps in northeastern California, the Sacramento Valley, the San Joaquin Valley.	**No.** The project area does not provide suitable habitat for this species.	All year
Picoides nuttallii Nuttall's woodpecker	FSC/--/--	Deciduous riparian and oak habitats. Requires snags and dead limbs for nesting.	**Yes.** The project area does provide suitable habitat for this species.	All year
Plegadis chihi White-faced ibis	FSC/CSC/--	Dense tule thickets for nesting interspersed with areas of shallow water for foraging.	**No.** The project area does not provide suitable habitat for this species.	April-August

FD = Delisted: Status to be Monitored for 5 Years
FSC = Federal Species of Special Concern
SLC = Species of Local Concern

STATE: (California Department of Fish and Game)
CE = Listed as Endangered by the State of California
CT = Listed as Threatened by the State of California
CR = Listed as Rare by the State of California (plants only)
CSC = California Species of Special Concern
CFP = California Fully Protected Species

CNPS: (California Native Plant Society)

List 1A = Plants presumed to be extinct
List 1B = Plants rare, threatened, or endangered in California and elsewhere
List 2 = Plants rare, threatened, or endangered in California, more common elsewhere
List 3 = Need more information

SOURCE: U.S. Fish and Wildlife Service, 2003; California Natural Diversity Data Base, 2003; and AES, 2003.

APPENDIX F

CITY OF SACRAMENTO BICYCLE ACCIDENT STATISTICS

City of Sacramento Crossroads Collisions (2000-2002)

LOCATION	DIST	DIR	YEAR	COLLISION TYPE	INVOLVED	EXTENT	PRIMARY COLLISION FACTOR	# INJ	# KLD	PARTY 1	PARTY 2	DOT 1	DOT 2	MOVEMENT PROCEEDING COLLISION 1	MOVEMENT PROCEEDING COLLISION 2
2000 Accidents															
Norwood Ave at Carroll Ave	0		2000	Other	Bicycle	Other Visible Injury	Other Hazardous Movement	1	0	Bicyclist	Driver	E	N	Entering Traffic	Proceeding Straight
Capitol Ave at 20th St	12	E	2000	Other	Bicycle	Other Visible Injury	Improper Turning	1	0	Driver	Bicyclist	W	W	Making Right Turn	Proceeding Straight
Valley Hi Dr at Halkeep Way	60	E	2000	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	E	S	Proceeding Straight	Proceeding Straight
Garden Highway at Truxel Rd	0		2000	Other	Bicycle	Other Visible Injury	Improper Turning	1	0	Bicyclist	Driver	E	E	Making Left Turn	Proceeding Straight
21st Ave at 32nd St	42	E	2000	Other	Bicycle	Complaint of Pain	Improper Turning	1	0	Bicyclist	Driver	W	W	Making Left Turn	Proceeding Straight
L St at 24th St	0		2000	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	S	W	Proceeding Straight	Proceeding Straight
BRdway at 21st St	13	W	2000	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	N	N	Making Left Turn	Proceeding Straight
Valley Hi Dr at Grandstaff Dr	15	N	2000	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Driver	Bicyclist		E	Making Left Turn	Proceeding Straight
36th St at BRdway	24	N	2000	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Bicyclist	Driver	W	N	Proceeding Straight	Making Right Turn
65th Expy at Lemon Hill Ave	0		2000	Other	Bicycle	Complaint of Pain	Traffic Signals and Signs	1	0	Bicyclist	Driver	S	E	Proceeding Straight	Proceeding Straight
56th St at J St	0		2000	Other	Bicycle	Other Visible Injury	Unknown	1	0	Bicyclist	Driver	S	N	Proceeding Straight	Proceeding Straight
Irvin Way at 24th St	250	W	2000	Other	Bicycle	Other Visible Injury	Improper Turning	1	0	Bicyclist	Parked Veh	W	E	X to Opp Ln-Unpind	Parked
24th St at 3rd Ave	22	E	2000	Other	Bicycle	Severe Injury	Auto R/W Violation	1	0	Bicyclist	Driver	N	N	Entering Traffic	Proceeding Straight
21st Ave at 73rd St	0		2000	Other	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Bicyclist	Driver	N	W	Proceeding Straight	Proceeding Straight
Bamford Dr at Summerview Way	243	W	2000	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Bicyclist	Driver	S	E	X to Opp Ln-Unpind	Proceeding Straight
Norwood Ave at Las Palmas Ave	500	N	2000	Other	Bicycle	Other Visible Injury	Improper Turning	1	0	Driver	Bicyclist	S	S	Making Right Turn	Proceeding Straight
T St at 39th St	0		2000	Other	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Bicyclist	Driver	S	E	Proceeding Straight	Proceeding Straight
West El Camino Ave at Northgate Blvd	0		2000	Other	Bicycle	Complaint of Pain	Other Hazardous Movement	1	0	Driver	Bicyclist	E	S	Proceeding Straight	Proceeding Straight
24th St at Kenworthy Way	25	S	2000	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	W	S	Proceeding Straight	Proceeding Straight
Fruitridge Rd at 49th St	36	W	2000	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	W	E	Traveling Wrong Way	Proceeding Straight
Richards Blvd at Bercut Dr	42	E	2000	Other	Bicycle	Other Visible Injury	Improper Passing	1	0	Bicyclist	Driver	E	E	Passing Other Vehicle	Proceeding Straight
Saginaw Circle at Truxel Rd	0		2000	Other	Bicycle	Other Visible Injury	Driving Under Influence	1	0	Bicyclist	Driver	W	S	Proceeding Straight	Proceeding Straight
8th St at K St	150	S	2000	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	S	E	Proceeding Straight	Proceeding Straight
2nd Ave at 36th St	12	E	2000	Other	Bicycle	Other Visible Injury	Improper Turning	1	0	Bicyclist	Driver	E	E	Other Unsafe Turning	Proceeding Straight
15th St at P St	0		2000	Other	Bicycle	Complaint of Pain	Traffic Signals and Signs	1	0	Bicyclist	Driver	S	S	Proceeding Straight	Proceeding Straight
Raley Blvd at Bell Ave	675	W	2000	Other	Bicycle	Other Visible Injury	Other Hazardous Movement	1	0	Bicyclist	Driver	S	S	Making Left Turn	Proceeding Straight
Howe Ave at Rt 50 Wboff/R (N)	90	N	2000	Other	Bicycle	Other Visible Injury	Driving Under Influence	1	0	Bicyclist	Driver	S	S	Proceeding Straight	Proceeding Straight
South Watt Ave at Folsom Blvd	200	N	2000	Other	Non-Collision	Other Visible Injury	Unknown	1	0	Bicyclist		S		Proceeding Straight	
El Mango Way at G Pkwy	60	S	2000	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	W	N	Proceeding Straight	Proceeding Straight
Freeport Blvd at Weller Way	60	S	2000	Other	Bicycle	Other Visible Injury	Improper Turning	1	0	Driver	Bicyclist	N	N	Making Right Turn	Proceeding Straight
Belden St at Alamos Ave	435	N	2000	Other	Bicycle	Complaint of Pain	Lights	1	0	Bicyclist	Driver	S	S	Proceeding Straight	Making U Turn
I St at 13th St	35	W	2000	Other	Bicycle	Complaint of Pain	Unknown	1	0	Bicyclist	Pedestrian	E	N	Proceeding Straight	Not Applicable - Ped
Center Pkwy at Valley Hi Dr	63	S	2000	Other	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Bicyclist	Parked Veh	W		Proceeding Straight	Parked
Rio Linda Blvd at Del Paso Blvd	18	N	2000	Other	Bicycle	Other Visible Injury	Unsafe Starting or Backing	1	0	Driver	Bicyclist			Backing	Proceeding Straight
21st Ave at 36th St	0		2000	Other	Bicycle	Complaint of Pain	Traffic Signals and Signs	1	0	Driver	Bicyclist	W	S	Proceeding Straight	Proceeding Straight
79th St at 36th Ave	0		2000	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Bicyclist	Driver	E	S	Making Left Turn	Proceeding Straight
Fruitridge Rd at Franklin Blvd	0		2000	Other	Bicycle	Complaint of Pain	Traffic Signals and Signs	1	0	Driver	Bicyclist	E	S	Proceeding Straight	Proceeding Straight
Freeport Blvd at Fruitridge Rd	0		2000	Other	Bicycle	Complaint of Pain	Traffic Signals and Signs	1	0	Bicyclist	Driver	S	E	Proceeding Straight	Proceeding Straight
K St at 23rd St	0		2000	Other	Bicycle	Other Visible Injury	Driving Under Influence	1	0	Bicyclist	Driver	S	E	Proceeding Straight	Proceeding Straight
Folsom Blvd at 49th St	0		2000	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	W	E	Traveling Wrong Way	Making Right Turn
Stockton Blvd at Perry Ave	276	S	2000	Other	Bicycle	Other Visible Injury	Improper Turning	1	0	Bicyclist	Driver	E	S	Making Left Turn	Proceeding Straight
Northgate Blvd at Rt 160 Sbon/R	0		2000	Other	Bicycle	Other Visible Injury	Driving Under Influence	1	0	Bicyclist	Driver	N	E	Proceeding Straight	Making Right Turn
Martin Luther King Blvd at 19th Ave	0		2000	Other	Bicycle	Other Visible Injury	Lights	1	0	Bicyclist	Driver	N	E	Proceeding Straight	Stopped in Road
26th Ave at Franklin Blvd	60	W	2000	Other	Bicycle	Complaint of Pain	Other Improper Driving	1	0	Bicyclist	Driver	E	S	Traveling Wrong Way	Entering Traffic
T St at 24th St	95	E	2000	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	N	E	Entering Traffic	Proceeding Straight
BRdway at 32nd St	16	E	2000	Other	Non-Collision	Other Visible Injury	Other Improper Driving	1	0	Bicyclist		E		Proceeding Straight	
El Camino Ave at Hawthorne St	0		2000	Other	Bicycle	Other Visible Injury	Driving Under Influence	1	0	Bicyclist	Driver	W	W	Making Right Turn	Proceeding Straight
El Camino Ave at Green St	135	W	2000	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	W	N	Proceeding Straight	Entering Traffic
Del Paso Blvd at Los Robles Blvd (N)	54	N	2000	Other	Bicycle	Severe Injury	Wrong Side of Road	1	0	Driver	Bicyclist		N	Proceeding Straight	Proceeding Straight
Grand Ave at Willow St	0		2000	Other	Bicycle	Property Damage Only	Wrong Side of Road	0	0	Driver	Bicyclist		W	Proceeding Straight	Traveling Wrong Way
24th St at 57th Ave	0		2000	Other	Bicycle	Other Visible Injury	Unsafe Speed	1	0	Driver	Bicyclist	E	N	Making Right Turn	Proceeding Straight
Mabel St at Butterworth Ave	0		2000	Other	Bicycle	Other Visible Injury	Other Hazardous Movement	1	0	Bicyclist	Driver	W	S	Proceeding Straight	Proceeding Straight
Normington Dr at West El Camino Ave	528	N	2000	Other	Bicycle	Other Visible Injury	Other Hazardous Movement	1	0	Bicyclist	Driver	W	N	Other	Proceeding Straight
Fruitridge Rd at Martin Luther King Blvd	15	W	2000	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	E	W	Proceeding Straight	Proceeding Straight
Stockton Blvd at San Francisco Blvd	27	N	2000	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	N	N	Making Left Turn	Proceeding Straight
Fairbanks Ave at Olmstead Dr	0		2000	Other	Bicycle	Complaint of Pain	Unsafe Speed	1	0	Bicyclist	Driver	S	W	Proceeding Straight	Proceeding Straight

City of Sacramento Crossroads Collisions (2000-2002)

LOCATION	DIST	DIR	YEAR	COLLISION TYPE	INVOLVED	EXTENT	PRIMARY COLLISION FACTOR	# INJ	# KLD	PARTY 1	PARTY 2	DOT 1	DOT 2	MOVEMENT PROCEEDING COLLISION 1	MOVEMENT PROCEEDING COLLISION 2
Stockton Blvd at El Paraiso Ave	20	S	2000	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	N	E	Traveling Wrong Way	Making Right Turn
Q St at 18th St	0		2000	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Bicyclist	Driver	N	S	Proceeding Straight	Making Left Turn
Mc Mahon Dr at Ortega St	0		2000	Other	Bicycle	Complaint of Pain	Traffic Signals and Signs	1	0	Driver	Bicyclist	S	W	Slowing/Stopping	Proceeding Straight
14th St at E St	0		2000	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Driver	Bicyclist	S	E	Proceeding Straight	Proceeding Straight
Capitol Mall at Neasham Circle (W)	0		2000	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Bicyclist	Driver	N	W	Proceeding Straight	Proceeding Straight
24th St at Alley P - Q	0		2000	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	W	N	Making Right Turn	Not Stated
28th St at J St	12	S	2000	Other	Bicycle	Property Damage Only	Traffic Signals and Signs	0	0	Bicyclist	Driver	E	S	Proceeding Straight	Proceeding Straight
21st St at Capitol Ave	150	S	2000	Other	Bicycle	Other Visible Injury	Improper Turning	1	0	Driver	Bicyclist	N	N	Making Left Turn	Proceeding Straight
17th St at Q St	175	S	2000	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	E	S	Making Left Turn	Proceeding Straight
3rd St at S St	0		2000	Other	Bicycle	Complaint of Pain	Traffic Signals and Signs	1	0	Driver	Bicyclist	E	S	Entering Traffic	Proceeding Straight
Edison Ave at Marcus Ct	0		2000	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	N	E	Proceeding Straight	Proceeding Straight
Nogales St at Marysville Blvd	360	W	2000	Other	Bicycle	Complaint of Pain	Unknown	1	0	Bicyclist	Driver	E	E	Proceeding Straight	Proceeding Straight
El Camino Ave at Clay St	0		2000	Other	Bicycle	Complaint of Pain	Unknown	1	0	Bicyclist	Driver	N	E	Making Left Turn	Proceeding Straight
Freeport Blvd at Mc Allister Ave	12	S	2000	Other	Bicycle	Severe Injury	Wrong Side of Road	1	0	Bicyclist	Driver	N	E	Traveling Wrong Way	Stopped in Road
Stockton Blvd at 13th Ave (N)	42	S	2000	Other	Bicycle	Complaint of Pain	Other Hazardous Movement	1	0	Bicyclist	Driver	N	N	Changing Lanes	Proceeding Straight
Rio Linda Blvd at Sonoma Ave	0		2000	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Driver	Bicyclist	W	S	Stopped in Road	Proceeding Straight
Freeport Blvd at 5th Ave	42	N	2000	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	W	N	Proceeding Straight	Proceeding Straight
Franklin Blvd at 27th Ave	0	N	2000	Other	Bicycle	Complaint of Pain	Improper Passing	1	0	Driver	Bicyclist	N	N	Proceeding Straight	Proceeding Straight
H St at 34th St	0		2000	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	E	W	Proceeding Straight	Making Right Turn
43rd Ave at Gloria Dr	0		2000	Other	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Bicyclist	Driver	N	E	Traveling Wrong Way	Proceeding Straight
Alhambra Blvd at Capitol Ave	0		2000	Other	Bicycle	Complaint of Pain	Traffic Signals and Signs	1	0	Driver	Bicyclist	S	W	Making Right Turn	Proceeding Straight
Fruitridge Rd at Ethel Way	178	E	2000	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	E		Traveling Wrong Way	Entering Traffic
Fruitridge Rd at 53rd St	0		2000	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Driver	Bicyclist	W	S	Making Left Turn	Proceeding Straight
K St at 27th St	69	E	2000	Other	Bicycle	Other Visible Injury	Improper Turning	1	0	Bicyclist	Driver	N	E	Entering Traffic	Proceeding Straight
E St at 30th St	0		2000	Other	Bicycle	Severe Injury	Traffic Signals and Signs	1	0	Driver	Bicyclist		W	Proceeding Straight	Proceeding Straight
Northgate Blvd at Garden Highway (N)	0		2000	Other	Bicycle	Other Visible Injury	Improper Turning	1	0	Driver	Bicyclist	E	N	Stopped in Road	Proceeding Straight
15th St at H St	0		2000	Other	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Bicyclist	Driver	W	S	Traveling Wrong Way	Proceeding Straight
56th St at J St	4	S	2000	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	W	E	Making Left Turn	Proceeding Straight
L St at 12th St	93	E	2000	Other	Bicycle	Complaint of Pain	Other Hazardous Movement	1	0	Bicyclist	Driver	E	S	Proceeding Straight	Stopped in Road
Mack Rd at Deer Meadow Dr	0		2000	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	W	N	Traveling Wrong Way	Making Right Turn
Eliza St at Delta St	0		2000	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	W	S	Proceeding Straight	Proceeding Straight
Del Paso Blvd at Las Palmas Ave	330	S	2000	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	S	N	Proceeding Straight	Stopped in Road
Arden Way at Rt 99 50 80	40	E	2000	Other	Bicycle	Other Visible Injury	Improper Turning	1	0	Bicyclist	Driver	E	E	Changing Lanes	Proceeding Straight
Del Paso Blvd at RailRd Dr	0		2000	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Driver	Bicyclist	S	W	Entering Traffic	Proceeding Straight
53rd St at 10th Ave	5	S	2000	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	W	N	Making Left Turn	Proceeding Straight
62nd St at Fruitridge Rd	528	S	2000	Other	Bicycle	Other Visible Injury	Unsafe Speed	1	0	Bicyclist	Parked Veh	N		Proceeding Straight	Parked
Center Pkwy at Valley Hi Dr	0		2000	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	S	W	Proceeding Straight	Proceeding Straight
G St at 29th St	0		2000	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Driver	Bicyclist	W	E	Making Left Turn	Proceeding Straight
San Juan Rd at Truxel Rd	208	W	2000	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	W	E	Traveling Wrong Way	Entering Traffic
American Ave at Jefferson Ave	0		2000	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Bicyclist	Driver	W	N	Stopped in Road	Proceeding Straight
BRdway at 14th St	141	W	2000	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	N	E	Entering Traffic	Proceeding Straight
Stockton Blvd at Elder Creek Rd	2	S	2000	Other	Bicycle	Complaint of Pain	Other Hazardous Movement	1	0	Driver	Bicyclist	N	E	Proceeding Straight	Proceeding Straight
Fruitridge Rd at Power Inn Rd	372	E	2000	Other	Bicycle	Other Visible Injury	Improper Turning	1	0	Bicyclist	Driver	W	W	Making Left Turn	Proceeding Straight
26th St at K St	0		2000	Other	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Bicyclist	Driver	S	W	Proceeding Straight	Proceeding Straight
12th St at C St	180	N	2000	Other	Bicycle	Other Visible Injury	Unknown	1	0	Bicyclist	Driver		S	Traveling Wrong Way	Proceeding Straight
Norwood Ave at Lindley Dr	0		2000	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	S	W	Traveling Wrong Way	Making Left Turn
7th St at H St	0		2000	Other	Bicycle	Complaint of Pain	Traffic Signals and Signs	1	0	Bicyclist	Driver	S	E	Proceeding Straight	Proceeding Straight
Meadowview Rd at Coral Gables Ct	470	W	2000	Other	Bicycle	Severe Injury	Driving Under Influence	1	0	Driver	Bicyclist	W	W	Proceeding Straight	Changing Lanes
Alpine Ave at Power Inn Rd	1056	E	2000	Other	Bicycle	Other Visible Injury	Other Improper Driving	1	0	Driver	Bicyclist	E	E	Proceeding Straight	Proceeding Straight
Franklin Blvd at 23rd Ave	48	N	2000	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Bicyclist	S	S	Proceeding Straight	Proceeding Straight
Whisper Wood Way at Clover Hill Ct	0		2000	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	N	S	Entering Traffic	Proceeding Straight
Center Pkwy at Derlin Way	0		2000	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	N	E	Traveling Wrong Way	Making Right Turn
I St at 15th St	10	W	2000	Other	Bicycle	Other Visible Injury	Unknown	1	0	Bicyclist	Driver	N	W	Proceeding Straight	Proceeding Straight
65th Expy at Elder Creek Rd	528	N	2000	Other	Bicycle	Severe Injury	Other Hazardous Movement	1	0	Bicyclist	Driver	N	N	Changing Lanes	Proceeding Straight
Power Inn Rd at Folsom Blvd	8	S	2000	Other	Bicycle	Complaint of Pain	Traffic Signals and Signs	1	0	Bicyclist	Driver	E	N	Stopped in Road	Proceeding Straight
37th St at 9th Ave	0		2000	Other	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Driver	Bicyclist	W	S	Proceeding Straight	Making Left Turn
Fruitridge Rd at 65th Expy	0		2000	Other	Bicycle	Severe Injury	Wrong Side of Road	1	0	Bicyclist	Driver	E	N	Proceeding Straight	Proceeding Straight
Irvin Way at Freeport Blvd	0		2000	Other	Bicycle	Complaint of Pain	Traffic Signals and Signs	1	0	Bicyclist	Driver	N	E	Proceeding Straight	Proceeding Straight

City of Sacramento Crossroads Collisions (2000-2002)

LOCATION	DIST	DIR	YEAR	COLLISION TYPE	INVOLVED	EXTENT	PRIMARY COLLISION FACTOR	# INJ	# KLD	PARTY 1	PARTY 2	DOT 1	DOT 2	MOVEMENT PROCEEDING COLLISION 1	MOVEMENT PROCEEDING COLLISION 2
Truxel Rd at West El Camino Ave	528	S	2000	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	S	N	Traveling Wrong Way	Other
El Camino Ave at Boxwood St	90	E	2000	Other	Bicycle	Other Visible Injury	Driving Under Influence	1	0	Driver	Bicyclist	W	W	Proceeding Straight	Proceeding Straight
21st Ave at 60th St (N)	0		2000	Other	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Bicyclist	Driver	N	W	Proceeding Straight	Slowing/Stopping
21st St at Capitol Ave	0	S	2000	Other	Bicycle	Complaint of Pain	Traffic Signals and Signs	1	0	Driver	Bicyclist	N	W	Making Right Turn	Proceeding Straight
Connie Dr at Iris Ave	222	S	2000	Other	Bicycle	Complaint of Pain	Improper Turning	1	0	Bicyclist	Driver	S	S	Making Left Turn	Proceeding Straight
12th St at North B St	167	N	2000	Other	Bicycle	Fatal	Other Hazardous Movement	0	1	Bicyclist	Driver	S	S	Proceeding Straight	Proceeding Straight
12th Ave at Martin Luther King Blvd	0		2000	Other	Bicycle	Property Damage Only	Auto R/W Violation	0	0	Bicyclist	Driver	S	W	Proceeding Straight	Proceeding Straight
J St at 56th St	0		2000	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Driver	Bicyclist	W	E	Making Left Turn	Proceeding Straight
12th St at I St	0		2000	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	E	S	Proceeding Straight	Making Left Turn
Fair Oaks Blvd at Howe Ave	21	E	2000	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	S	W	Proceeding Straight	Proceeding Straight
Stockton Blvd at Lemon Hill Ave	62	N	2000	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	S	W	Proceeding Straight	Making Right Turn
Franklin Blvd at 14th Ave (N)	42	S	2000	Other	Bicycle	Severe Injury	Other Hazardous Movement	1	0	Bicyclist	Driver	N	N	Proceeding Straight	Proceeding Straight
Folsom Blvd at 56th St	130	W	2000	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	S	E	Entering Traffic	Proceeding Straight
3rd St at Capitol Mall	12	N	2000	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	E	S	Proceeding Straight	Proceeding Straight
65th Expy at Fruitridge Rd	180	N	2000	Other	Bicycle	Severe Injury	Other Hazardous Movement	1	0	Bicyclist	Driver	N	N	Proceeding Straight	Proceeding Straight
12th St at G St	12	N	2000	Other	Non-Collision	Other Visible Injury	Traffic Signals and Signs	1	0	Bicyclist		W		Proceeding Straight	
Stockton Blvd at Roosevelt Ave	60	S	2000	Other	Bicycle	Complaint of Pain	Driving Under Influence	1	0	Bicyclist	Driver	W	N	Other Unsafe Turning	Proceeding Straight
Kesner Ave at Altos Ave	315	W	2000	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver		W	Entering Traffic	Proceeding Straight
Northgate Blvd at Northfield Dr	10	N	2000	Other	Bicycle	Complaint of Pain	Improper Turning	1	0	Bicyclist	Driver	N	N	Making Left Turn	Proceeding Straight
Helen Way at Fruitridge Rd	0		2000	Other	Bicycle	Property Damage Only	Ped R/W Violation	0	0	Driver	Bicyclist	N	W	Making Right Turn	Proceeding Straight
47th Ave at Stockton Blvd	0		2000	Other	Bicycle	Complaint of Pain	Traffic Signals and Signs	1	0	Bicyclist	Driver	S	E	Proceeding Straight	Proceeding Straight
Fair Oaks Blvd at Cadillac Dr	485	E	2000	Other	Bicycle	Other Visible Injury	Unsafe Lane Change	1	0	Bicyclist	Driver	W	W	Changing Lanes	Changing Lanes
Franklin Blvd at 27th Ave	86	S	2000	Other	Bicycle	Complaint of Pain	Unsafe Speed	1	0	Bicyclist	Parked Veh	S		Proceeding Straight	Parked
Valko Ave at Thorpe Way	18	W	2000	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	N	E	Making Left Turn	Proceeding Straight
Stockton Blvd at Lemon Hill Ave	0		2000	Other	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Driver	Bicyclist	N	E	Proceeding Straight	Proceeding Straight
21st St at I St	150	S	2000	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	S	E	Traveling Wrong Way	Entering Traffic
M St at 51st St	0		2000	Other	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Bicyclist	Driver	E	N	Proceeding Straight	Proceeding Straight
29th St at H St	0		2000	Other	Bicycle	Fatal	Driving Under Influence	0	1	Bicyclist	Driver	E	S	Proceeding Straight	Proceeding Straight
T St at 48th St	0		2000	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	E	S	Proceeding Straight	Proceeding Straight
Riverside Blvd at Sutterville Rd	0		2000	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	E	N	Making Left Turn	Proceeding Straight
North 12th St at Sunbeam Ave	100	S	2000	Other	Bicycle	Other Visible Injury	Unsafe Speed	1	0	Driver	Bicyclist	S	S	Proceeding Straight	Proceeding Straight
Lucio Lane at South Land Park Dr	0		2000	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	W	N	Making Left Turn	Proceeding Straight
T St at 25th St	0		2000	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Driver	Bicyclist	E	W	Making Left Turn	Proceeding Straight
Franklin Blvd at 29th Ave	240	S	2000	Other	Bicycle	Other Visible Injury	Improper Turning	1	0	Driver	Bicyclist	S	S	Making Right Turn	Proceeding Straight
2nd Ave at 37th St	300	E	2000	Other	Bicycle	Other Visible Injury	Other Improper Driving	1	0	Bicyclist	Driver	N	E	Entering Traffic	Proceeding Straight
Perry Ave at Mc Glashan St	0		2000	Other	Bicycle	Complaint of Pain	Unknown	1	0	Bicyclist	Driver	N	E	Proceeding Straight	Stopped in Road
Evergreen St at El Camino Ave	0		2000	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	S	N	Making Left Turn	Proceeding Straight
Fruitridge Rd at 71st St	0		2000	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	N	W	Making Left Turn	Proceeding Straight
Caselli Circle at Burgoyne Lane	0		2000	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	N	E	Proceeding Straight	Proceeding Straight
Becket Way at Franklin Blvd	0		2000	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	S	W	Proceeding Straight	Making Right Turn
J St at 15th St	0		2000	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	N	E	Proceeding Straight	Proceeding Straight
Fruitridge Rd at Fruitridge Transfer Sta	0		2000	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	E	S	Entering Traffic	Proceeding Straight
51st St at J St	8	S	2000	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Bicyclist	Driver	E	S	Proceeding Straight	Making Left Turn
Valley Hi Dr at Mack Rd	626	S	2000	Other	Bicycle	Other Visible Injury	Driving Under Influence	2	0	Driver	Bicyclist	S	N	Proceeding Straight	Making Left Turn
20th St at Q St	0		2000	Other	Bicycle	Complaint of Pain	Pedestrian Violation	1	0	Bicyclist	Driver	W	S	Traveling Wrong Way	Proceeding Straight
Amblebrook Way at Newgate Dr	10	E	2000	Other	Bicycle	Complaint of Pain	Improper Turning	1	0	Bicyclist	Driver	E	E	Making Right Turn	Proceeding Straight
30th St at J St	11	S	2000	Other	Bicycle	Complaint of Pain	Driving Under Influence	1	0	Driver	Bicyclist	N	E	Proceeding Straight	Proceeding Straight
Freeport Blvd at 14th Ave	159	S	2000	Other	Bicycle	Severe Injury	Traffic Signals and Signs	1	0	Bicyclist	Driver	W	S	Stopped in Road	Proceeding Straight
Valley Hi Dr at Kentwal Dr	0		2000	Other	Bicycle	Other Visible Injury	Improper Turning	1	0	Bicyclist	Driver	N	E	Making Left Turn	Proceeding Straight
El Camino Ave at Fairfield St	0		2000	Other	Bicycle	Other Visible Injury	Driving Under Influence	2	0	Bicyclist	Driver	N	W	Proceeding Straight	Proceeding Straight
Mack Rd at Tangerine Ave	389	E	2000	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	W	E	Traveling Wrong Way	Making Right Turn
Alhambra Blvd at Granada Way	0		2000	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	N	E	Proceeding Straight	Slowing/Stopping
15th St at I St	150	S	2000	Other	Bicycle	Other Visible Injury	Other Hazardous Movement	2	0	Bicyclist	Driver	N	E	Proceeding Straight	Slowing/Stopping
BRdway at 57th St	144	W	2000	Other	Bicycle	Other Visible Injury	Wrong Side of Road	2	0	Bicyclist	Driver	E	W	Entering Traffic	Stopped in Road
12th St at I St	0		2000	Other	Bicycle	Severe Injury	Traffic Signals and Signs	1	0	Bicyclist		W		Proceeding Straight	
Auburn Blvd at Frienza Ave	0		2000	Other	Bicycle	Other Visible Injury	Improper Passing	1	0	Driver	Bicyclist	N	N	Proceeding Straight	Proceeding Straight
79th St at Fruitridge Rd	0		2000	Other	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Bicyclist	Driver	N	W	Proceeding Straight	Proceeding Straight
K St at 30th St	66	W	2000	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	E	S	Proceeding Straight	Proceeding Straight

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LOCATION	DIST	DIR	YEAR	COLLISION TYPE	INVOLVED	EXTENT	PRIMARY COLLISION FACTOR	# INJ	# KLD	PARTY 1	PARTY 2	DOT 1	DOT 2	MOVEMENT PROCEEDING COLLISION 1	MOVEMENT PROCEEDING COLLISION 2
Bridgecreek Dr at Crossmill Way	0		2000	Other	Bicycle	Other Visible Injury	Unsafe Speed	1	0	Driver	Bicyclist	W	W	Proceeding Straight	Proceeding Straight
11th Ave at 65th St	0		2000	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	N	E	Proceeding Straight	Making Right Turn
Alhambra Blvd at J St	186	N	2000	Other	Bicycle	Severe Injury	Unknown	1	0	Driver	Bicyclist	E	N	Making Right Turn	Proceeding Straight
Grand Ave at Taylor St	0		2000	Other	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Driver	Bicyclist	S	W	Proceeding Straight	Proceeding Straight
Stockton Blvd at Massie Ct	100	N	2000	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	S	E	Proceeding Straight	Not Stated
Stockton Blvd at Fruitridge Rd	400	N	2000	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Bicyclist	Driver	E	S	Entering Traffic	Proceeding Straight
S St at 28th St	120	E	2000	Other	Bicycle	Other Visible Injury	Other Hazardous Movement	1	0	Driver	Bicyclist	E	E	Other	Proceeding Straight
Northgate Blvd at West El Camino Ave	0		2000	Other	Bicycle	Complaint of Pain	Driving Under Influence	1	0	Driver	Bicyclist	S	E	Proceeding Straight	Proceeding Straight
65th St at 4th Ave	0		2000	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Driver	Bicyclist	S	N	Making Left Turn	Proceeding Straight
Florin Rd at Tamoshanter Way	0		2000	Other	Bicycle	Property Damage Only	Unknown	0	0	Bicyclist	Driver	S		Other	Proceeding Straight
Franklin Blvd at Fruitridge Rd	170	N	2000	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	S	N	Making Right Turn	Proceeding Straight
Folsom Blvd at Wissemann Dr	256	W	2000	Other	Bicycle	Complaint of Pain	Improper Turning	1	0	Driver	Bicyclist	W	W	Proceeding Straight	Proceeding Straight
BRdway at Stockton Blvd	0		2000	Other	Bicycle	Other Visible Injury	Unsafe Speed	1	0	Driver	Bicyclist	E	S	Making Right Turn	Proceeding Straight
Alhambra Blvd at BRdway	180	N	2000	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Driver	Bicyclist	N	S	Making Right Turn	Proceeding Straight
Lemon Park Way at Lemon Hill Ave	0		2000	Other	Bicycle	Complaint of Pain	Unknown	1	0	Driver	Bicyclist	S	E	Making Left Turn	Proceeding Straight
63rd St at Fruitridge Rd	4	N	2000	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	E	S	Proceeding Straight	Making Right Turn
South Ave at Marysville Blvd	0		2000	Other	Bicycle	Other Visible Injury	Pedestrian Violation	1	0	Bicyclist	Driver	E	N	Proceeding Straight	Making Left Turn
79th St at 33rd Ave	0		2000	Other	Bicycle	Complaint of Pain	Traffic Signals and Signs	1	0	Bicyclist	Driver	N	W	Proceeding Straight	Proceeding Straight
13th St at E St	192	S	2000	Other	Bicycle	Complaint of Pain	Pedestrian Violation	1	0	Bicyclist	Driver	N	E	Proceeding Straight	Proceeding Straight
North Ave at Haywood St	0		2000	Other	Bicycle	Complaint of Pain	Traffic Signals and Signs	1	0	Bicyclist	Driver	N	W	Making Left Turn	Proceeding Straight
Fruitridge Rd at Florin Perkins Rd	0		2000	Other	Bicycle	Other Visible Injury	Unknown	1	0	Driver	Bicyclist	E	N	Making Right Turn	Proceeding Straight
21st Ave at 53rd St	0		2000	Other	Bicycle	Complaint of Pain	Driving Under Influence	1	0	Bicyclist	Driver	S	W	Proceeding Straight	Proceeding Straight
Northgate Blvd at Del Paso Blvd	75	N	2000	Other	Bicycle	Other Visible Injury	Driving Under Influence	1	0	Driver	Bicyclist	N	N	Other	Other
50th St at 12th Ave	0		2000	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	E	S	Proceeding Straight	Proceeding Straight
G St at 9th St	138	W	2000	Other	Bicycle	Complaint of Pain	Driving Under Influence	1	0	Driver	Bicyclist		W	Other	Proceeding Straight
BRdway at Land Park Dr	0		2000	Other	Bicycle	Complaint of Pain	Improper Passing	1	0	Bicyclist	Driver	E	E	Passing Other Vehicle	Stopped in Road
Mack Rd at Archean Way	0		2000	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Driver	Bicyclist	S	E	Making Right Turn	Proceeding Straight
Hornet Dr at Rt 50	0		2000	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	N	S	Proceeding Straight	Making Right Turn
Marysville Blvd at Arcade Blvd	198	N	2000	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	E	N	Changing Lanes	Proceeding Straight
H St at Alhambra Blvd	100	E	2000	Other	Bicycle	Complaint of Pain	Unsafe Speed	1	0	Bicyclist	Driver	W	W	Proceeding Straight	Stopped in Road
21st St at T St	0		2000	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	W	N	Proceeding Straight	Making Right Turn
Roseville Rd at Longview Dr	1056	S	2000	Other	Bicycle	Other Visible Injury	Other Hazardous Movement	1	0	Bicyclist	Driver	N	S	X to Opp Ln-Unpind	Proceeding Straight
Del Paso Rd at Gateway Park Blvd	88	W	2000	Other	Bicycle	Other Visible Injury	Unknown	1	0	Driver	Bicyclist	E	E	Proceeding Straight	Changing Lanes
G St at 8th St	0		2000	Other	Bicycle	Complaint of Pain	Traffic Signals and Signs	1	0	Driver	Bicyclist	W	N	Proceeding Straight	Proceeding Straight
47th Ave at 27th St	300	W	2000	Other	Bicycle	Complaint of Pain	Improper Turning	1	0	Bicyclist	Driver	E	E	Making Left Turn	Proceeding Straight
4th Ave at 44th St	11	W	2000	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	N	E	Making Left Turn	Proceeding Straight
Northgate Blvd at Peralta Ave	70	S	2000	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	E	N	Proceeding Straight	Proceeding Straight
11th St at Q St	0		2000	Other	Oth Mtr Veh	Complaint of Pain	Auto R/W Violation	1	0	Driver	Bicyclist	S	N	Making Left Turn	Proceeding Straight
L St at 9th St	0		2000	Other	Bicycle	Complaint of Pain	Traffic Signals and Signs	1	0	Driver	Bicyclist		S	Proceeding Straight	Proceeding Straight
Exposition Blvd at Ethan Way	600	W	2000	Other	Bicycle	Severe Injury	Improper Turning	1	0	Bicyclist	Driver		E	Changing Lanes	Proceeding Straight
23rd St at Q St	0		2000	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	W	S	Traveling Wrong Way	Proceeding Straight
Martin Luther King Blvd at 19th Ave	0		2000	Other	Bicycle	Other Visible Injury	Traffic Signals and Signs	2	0	Driver	Bicyclist	E	N	Making Right Turn	Proceeding Straight
24th St at 68th Ave	0		2000	Other	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Driver	Bicyclist	S	W	Proceeding Straight	Proceeding Straight
Pebblewood Dr at Truxel Rd	0		2000	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	E	E	Proceeding Straight	Making Left Turn
Riverside Blvd at Robertson Way	18	S	2000	Other	Bicycle	Complaint of Pain	Unsafe Starting or Backing	1	0	Driver	Bicyclist	N	S	Backing	Making Right Turn
Martin Luther King Blvd at 17th Ave	154	S	2000	Other	Bicycle	Severe Injury	Driving Under Influence	1	0	Bicyclist	Driver	N	N	Other Unsafe Turning	Proceeding Straight
H St at 25th St	0		2000	Other	Bicycle	Other Visible Injury	Unknown	1	0	Driver	Bicyclist	W	E	Proceeding Straight	Proceeding Straight
Fruitridge Rd at 24th St	65	E	2000	Other	Bicycle	Other Visible Injury	Improper Passing	1	0	Driver	Bicyclist	W	W	Passing Other Vehicle	Proceeding Straight
Matson Dr at 24th St	12	W	2000	Other	Bicycle	Complaint of Pain	Traffic Signals and Signs	1	0	Bicyclist	Driver	N	E	Proceeding Straight	Proceeding Straight
Capitol Mall at 9th St	0		2000	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	S	S	Proceeding Straight	Stopped in Road
Howe Ave at Edison Ave	0		2000	Other	Bicycle	Other Visible Injury	Unknown	1	0	Bicyclist	Driver	E	S	Proceeding Straight	Making Left Turn
16th St at H St	0		2000	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	S	E	Traveling Wrong Way	Proceeding Straight
Summersdale Dr at Summerbrook Way	140	N	2000	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	S	N	Making Left Turn	Proceeding Straight
2001 Accidents															
34th St at Y St	0		2001	Other	Bicycle	Complaint of Pain	Traffic Signals and Signs	1	0	Bicyclist	Driver	S	W	Proceeding Straight	Proceeding Straight
Valley Hi Dr at Halkeep Way	78	E	2001	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Driver	Bicyclist	S	E	Making Right Turn	Proceeding Straight
Tamoshanter Way at 65th Ave	12	N	2001	Other	Bicycle	Other Visible Injury	Unsafe Speed	1	0	Driver	Bicyclist	S	S	Proceeding Straight	Proceeding Straight

City of Sacramento Crossroads Collisions (2000-2002)

LOCATION	DIST	DIR	YEAR	COLLISION TYPE	INVOLVED	EXTENT	PRIMARY COLLISION FACTOR	# INJ	# KLD	PARTY 1	PARTY 2	DOT 1	DOT 2	MOVEMENT PROCEEDING COLLISION 1	MOVEMENT PROCEEDING COLLISION 2
West El Camino Ave at Rt 80 Eboff/R	0		2001	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Driver	Bicyclist	E	W	Making Right Turn	Proceeding Straight
65th St at S St	0		2001	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	S	W	Proceeding Straight	Making Right Turn
Alhambra Blvd at D St	180	N	2001	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	N	E	Entering Traffic	Proceeding Straight
5th St at L St	0		2001	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	E	N	Proceeding Straight	Making Left Turn
El Camino Ave at Lexington St	13	W	2001	Other	Bicycle	Complaint of Pain	Driving Under Influence	1	0	Bicyclist	Driver	N	W	Proceeding Straight	Proceeding Straight
Exposition Blvd at Rt 99 50 80	300	W	2001	Other	Bicycle	Property Damage Only	Unknown	0	0	Driver	Bicyclist	W	W	Proceeding Straight	Proceeding Straight
13th St at J St	200	N	2001	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Driver	Bicyclist	S	N	Making Left Turn	Proceeding Straight
Mack Rd at Nixos Way	0		2001	Other	Bicycle	Other Visible Injury	Ped R/W Violation	1	0	Driver	Bicyclist	E	N	Proceeding Straight	Proceeding Straight
Valley Hi Dr at Kentwal Dr	3	E	2001	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Bicyclist	Driver	S	E	Proceeding Straight	Proceeding Straight
Norwood Ave at Lampasas Ave	186	S	2001	Other	Pkd Mtr Veh	Complaint of Pain	Driving Under Influence	1	0	Bicyclist	Parked Veh	S		Ran Off Road	Parked
West El Camino Ave at Northgate Blvd	300	W	2001	Other	Bicycle	Complaint of Pain	Improper Turning	1	0	Bicyclist	Driver	S	W	Making Left Turn	Making Left Turn
Franklin Blvd at 2nd Ave	0		2001	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Driver	Bicyclist	W	E	Making Left Turn	Proceeding Straight
Valley Hi Dr at Hitchcock Way	35	E	2001	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	S	W	Entering Traffic	Proceeding Straight
Rio Linda Blvd at Alamos Ave	197	S	2001	Other	Non-Collision	Other Visible Injury	Driving Under Influence	1	0	Bicyclist		N		Proceeding Straight	
Florin Rd at Freeport Blvd	255	W	2001	Other	Bicycle	Severe Injury	Driving Under Influence	1	0	Bicyclist	Driver	E	W	Proceeding Straight	Proceeding Straight
Freeport Blvd at Bidwell Way	0		2001	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	N	E	Making Right Turn	Proceeding Straight
Bruceville Rd at Calvine Rd	0		2001	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	N	E	Proceeding Straight	Making Left Turn
Brookfield Dr at Franklin Blvd	150	E	2001	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Bicyclist	Driver	S	E	Proceeding Straight	Proceeding Straight
14th Ave at 60th St (W)	45	E	2001	Other	Bicycle	Property Damage Only	Wrong Side of Road	0	0	Bicyclist	Driver	S	E	X to Opp Ln-Unpind	Proceeding Straight
K St at 16th St	111	E	2001	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	N	W	Making Left Turn	Proceeding Straight
24th St at J St	0		2001	Broadside	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	W	N	Other	Proceeding Straight
West El Camino Ave at Stonecreek Dr	458	E	2001	Other	Bicycle	Severe Injury	Wrong Side of Road	1	0	Bicyclist	Driver	W	W	Proceeding Straight	Proceeding Straight
J St at 48th St	0		2001	Other	Bicycle	Complaint of Pain	Improper Turning	1	0	Bicyclist	Driver	S	S	Making Left Turn	Proceeding Straight
12th St at North B St	0		2001	Other	Bicycle	Other Visible Injury	Other Hazardous Movement	1	0	Bicyclist	Driver	N	S	Proceeding Straight	Making Left Turn
E St at 18th St	0		2001	Other	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Driver	Bicyclist	W	N	Stopped in Road	Making Left Turn
Main Ave at Kelton Way	528	W	2001	Other	Bicycle	Other Visible Injury	Other Improper Driving	1	0	Bicyclist	Parked Veh	E	E	Proceeding Straight	Parked
Q St at 8th St	9	W	2001	Other	Bicycle	Other Visible Injury	Unknown	1	0	Bicyclist	Driver	S	E	Proceeding Straight	Proceeding Straight
16th Ave at 33rd St (W)	0		2001	Other	Bicycle	Other Visible Injury	Unsafe Speed	1	0	Driver	Bicyclist	E	W	Proceeding Straight	Entering Traffic
Franklin Blvd at Brookfield Dr	0		2001	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	E	N	Proceeding Straight	Making Right Turn
South Ave at Belden St	4	E	2001	Other	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Bicyclist	Driver	N	E	Other Unsafe Turning	Proceeding Straight
Alhambra Blvd at Casita Way	24	N	2001	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	N	S	Making Left Turn	Proceeding Straight
North B St at North 12th St	50	E	2001	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Bicyclist	Driver	E	E	Other	Proceeding Straight
Norwood Ave at Jessie Ave	71	N	2001	Other	Bicycle	Severe Injury	Auto R/W Violation	1	0	Bicyclist	Driver	E	N	Entering Traffic	Proceeding Straight
El Mango Way at Caselli Circle (N)	81	S	2001	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	N	S	Traveling Wrong Way	Proceeding Straight
Azevedo Dr at Bannon Creek Dr	0		2001	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	N	E	Proceeding Straight	Entering Traffic
G St at 16th St	16	E	2001	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	S	W	Traveling Wrong Way	Making Right Turn
1st Ave at 32nd St	42	E	2001	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	N	E	Entering Traffic	Proceeding Straight
18th Ave at Franklin Blvd	72	W	2001	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	W	N	Traveling Wrong Way	Making Right Turn
Tangerine Ave at Audia Circle (W)	0	W	2001	Other	Bicycle	Complaint of Pain	Driving Under Influence	1	0	Driver	Bicyclist		E	Proceeding Straight	Proceeding Straight
Folsom Blvd at 58th St	0		2001	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Bicyclist	Driver	E	S	Proceeding Straight	Stopped in Road
7th St at I St	50	S	2001	Other	Bicycle	Complaint of Pain	Improper Turning	1	0	Driver	Bicyclist	S	S	Proceeding Straight	Proceeding Straight
Center Pkwy at Calvine Rd	2	S	2001	Other	Bicycle	Complaint of Pain	Traffic Signals and Signs	1	0	Driver	Bicyclist	N	E	Proceeding Straight	Proceeding Straight
C St at 26th St	0		2001	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Driver	Bicyclist	W	E	Making Left Turn	Proceeding Straight
Greenhaven Dr at Riverside Blvd	0	S	2001	Other	Bicycle	Other Visible Injury	Other Hazardous Movement	1	0	Bicyclist	Driver	S	E	Proceeding Straight	Other
Longview Dr at Industry Dr	1000	W	2001	Other	Non-Collision	Complaint of Pain	Driving Under Influence	1	0	Bicyclist		E		Proceeding Straight	
22nd St at 18th Ave	528	N	2001	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Driver	Bicyclist	E	N	Proceeding Straight	Proceeding Straight
32nd St at 3rd Ave	138	S	2001	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	E	S	Proceeding Straight	Proceeding Straight
L St at 21st St	0		2001	Other	Bicycle	Complaint of Pain	Traffic Signals and Signs	1	0	Driver	Bicyclist	N	W	Proceeding Straight	Proceeding Straight
Rio Linda Blvd at Evans St	0		2001	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	N	S	Making Left Turn	Proceeding Straight
Lemon Hill Ave at Stockton Blvd	0		2001	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Driver	Bicyclist	N	W	Stopped in Road	Proceeding Straight
Power Inn Rd at Fruitridge Rd	343	N	2001	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Bicyclist	Driver	S	S	Entering Traffic	Proceeding Straight
7th St at Capitol Mall	0		2001	Other	Bicycle	Complaint of Pain	Other Hazardous Movement	1	0	Bicyclist	Driver	N	E	Traveling Wrong Way	Making Right Turn
42nd St at Folsom Blvd	0		2001	Other	Bicycle	Other Visible Injury	Unknown	1	0	Driver	Bicyclist	N	W	Proceeding Straight	Proceeding Straight
Arden Way at Boxwood St	180	E	2001	Other	Bicycle	Complaint of Pain	Unknown	1	0	Bicyclist	Driver	E	E	Making Right Turn	Proceeding Straight
5th St at L St	0		2001	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	E	N	Traveling Wrong Way	Proceeding Straight
Center Pkwy at Lochinvar Way	0		2001	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	N	E	Traveling Wrong Way	Making Right Turn
H St at 39th St	0		2001	Other	Bicycle	Severe Injury	Auto R/W Violation	1	0	Driver	Bicyclist	W	E	Making Left Turn	Proceeding Straight
Stockton Blvd at Lawrence Dr	375	S	2001	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	S	W	Proceeding Straight	Entering Traffic

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BRdway at 1st Ave	0		2001	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Driver	Bicyclist	W	E	Making Left Turn	Proceeding Straight
Sconce Way at Bredehoft Way	320	E	2001	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	E	W	Traveling Wrong Way	Proceeding Straight
Front St at Q St	0		2001	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	S	N	Making Left Turn	Proceeding Straight
Florin Rd at 24th St	208	W	2001	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	E	S	Proceeding Straight	Making Right Turn
Del Paso Blvd at Lampasas Ave	0		2001	Other	Bicycle	Complaint of Pain	Traffic Signals and Signs	1	0	Bicyclist	Driver	S	E	Proceeding Straight	Proceeding Straight
G St at 20th St	0		2001	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Driver	Bicyclist	W	N	Proceeding Straight	Traveling Wrong Way
O St at 15th St	0		2001	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	W	E	Making Left Turn	Proceeding Straight
I St at 22nd St	0		2001	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	N	W	Proceeding Straight	Proceeding Straight
Edison Ave at Howe Ave	0		2001	Other	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Bicyclist	Driver	S	E	Proceeding Straight	Proceeding Straight
N St at 5th St	115	W	2001	Other	Bicycle	Complaint of Pain	Other Hazardous Movement	1	0	Parked Veh	Bicyclist	E	E	Parked	Proceeding Straight
L St at 25th St	0		2001	Other	Bicycle	Other Visible Injury	Other Hazardous Movement	1	0	Bicyclist	Driver	E	S	Making Right Turn	Proceeding Straight
Arroyo Vista Dr at Gandy Dancer Way	5	W	2001	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	E	S	Proceeding Straight	Making Right Turn
24th St at Encinal Ave	0		2001	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	S	W	Traveling Wrong Way	Making Right Turn
BRdway at 50th St	0		2001	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	W	N	Proceeding Straight	Making Right Turn
E St at 30th St	0		2001	Other	Bicycle	Severe Injury	Traffic Signals and Signs	1	0	Bicyclist	Driver	W	N	Proceeding Straight	Proceeding Straight
Fruitridge Rd at 83rd St	462	W	2001	Other	Bicycle	Other Visible Injury	Unknown	1	0	Driver	Bicyclist		E	Proceeding Straight	Proceeding Straight
Stockton Blvd at Lemon Hill Ave	64	N	2001	Other	Bicycle	Severe Injury	Improper Turning	1	0	Bicyclist	Driver	N	N	Changing Lanes	Proceeding Straight
Valley Hi Dr at Mack Rd	1000	S	2001	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	N	E	Traveling Wrong Way	Making Right Turn
Folsom Blvd at Bicentennial Circle (W)	300	E	2001	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	E	S	Proceeding Straight	Making Right Turn
Riverside Blvd at Grangers Dairy Dr	114	N	2001	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	S	W	Traveling Wrong Way	Entering Traffic
Truxel Rd at San Juan Rd	300	S	2001	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	N	E	Proceeding Straight	Proceeding Straight
Del Paso Blvd at Palo Verde Ave	0		2001	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	E	S	Proceeding Straight	Proceeding Straight
Stockton Blvd at 4th Ave	90	N	2001	Other	Bicycle	Complaint of Pain	Unsafe Lane Change	1	0	Bicyclist	Driver	W	N	Entering Traffic	Proceeding Straight
8th Ave at Stockton Blvd	0		2001	Other	Bicycle	Other Visible Injury	Driving Under Influence	1	0	Bicyclist	Driver	N	E	Proceeding Straight	Making Right Turn
K St at 26th St	0		2001	Broadside	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	S	E	Making Left Turn	Proceeding Straight
Stockton Blvd at Fruitridge Rd	273	N	2001	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	N	E	Proceeding Straight	Entering Traffic
Norwood Ave at Jessie Ave	213	S	2001	Other	Bicycle	Severe Injury	Improper Turning	1	0	Bicyclist	Driver	S	S	Making Left Turn	Proceeding Straight
Northgate Blvd at West El Camino Ave	0	S	2001	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	S	N	Making Left Turn	Stopped In Road
T St at 37th St	90	E	2001	Other	Bicycle	Other Visible Injury	Improper Turning	1	0	Bicyclist	Driver	E	W	Making U Turn	Proceeding Straight
Luther Dr at Turnbridge Dr	562	N	2001	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Bicyclist	Driver	E	N	Entering Traffic	Proceeding Straight
65th Expy at 14th Ave	228	N	2001	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	E	S	Making U Turn	Proceeding Straight
BRdway at 63rd St (W)	19	E	2001	Other	Bicycle	Other Visible Injury	Improper Turning	1	0	Bicyclist	Driver	N	E	Making Left Turn	Proceeding Straight
Marysville Blvd at Los Robles Blvd (N)	0		2001	Other	Bicycle	Other Visible Injury	Driving Under Influence	1	0	Bicyclist	Driver	N	E	Proceeding Straight	Making Right Turn
K St at 23rd St	0		2001	Broadside	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	W	E	Making Left Turn	Proceeding Straight
36th Ave at Franklin Blvd	8	W	2001	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	N	W	Traveling Wrong Way	Making Right Turn
Alhambra Blvd at L St	75	S	2001	Other	Bicycle	Other Visible Injury	Unknown	1	0	Driver	Bicyclist	N	N	Parking Maneuver	Proceeding Straight
21st St at 2nd Ave (N)	0		2001	Other	Bicycle	Complaint of Pain	Other Hazardous Movement	1	0	Bicyclist	Driver	S	W	Traveling Wrong Way	Making Right Turn
29th St at J St	12	S	2001	Other	Bicycle	Complaint of Pain	Driving Under Influence	1	0	Driver	Bicyclist	E	W	Making Right Turn	Proceeding Straight
Mack Rd at Valley Hi Dr	1056	W	2001	Broadside	Bicycle	Property Damage Only	Wrong Side of Road	0	0	Bicyclist	Driver	W	E	Proceeding Straight	Making Right Turn
21st St at H St	3	S	2001	Other	Bicycle	Other Visible Injury	Improper Turning	1	0	Driver	Bicyclist	N	N	Making Right Turn	Proceeding Straight
Fair Oaks Blvd at University Ave	0		2001	Broadside	Bicycle	Complaint of Pain	Other Improper Driving	1	0	Bicyclist	Driver	E	E	Making U Turn	Making Right Turn
West El Camino Ave at Morell St	6	E	2001	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	W	N	Proceeding Straight	Making Right Turn
Florin Perkins Rd at 23rd Ave	200	N	2001	Other	Bicycle	Fatal	Wrong Side of Road	0	1	Bicyclist	Driver	N	N	Proceeding Straight	Proceeding Straight
51st Ave at Woodbine Ave	12	E	2001	Other	Bicycle	Other Visible Injury	Driving Under Influence	1	0	Bicyclist	Driver	N	E	Proceeding Straight	Making Left Turn
Brookfield Dr at Franklin Blvd	0		2001	Other	Bicycle	Other Visible Injury	Unsafe Speed	1	0	Driver	Bicyclist		W	Slowing/Stopping	Proceeding Straight
Tangerine Ave at Persimmon Ave	0		2001	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver		S	Traveling Wrong Way	Making Right Turn
Elder Creek Rd at 63rd St	80	E	2001	Other	Bicycle	Other Visible Injury	Improper Turning	1	0	Bicyclist	Driver	W	W	Changing Lanes	Proceeding Straight
8th St at U St	0		2001	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	E	S	Proceeding Straight	Proceeding Straight
El Camino Ave at Colfax St	528	W	2001	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	E	W	Proceeding Straight	Proceeding Straight
San Juan Rd at Miramonte Dr	0		2001	Other	Bicycle	Other Visible Injury	Wrong Side of Road	2	0	Bicyclist	Bicyclist	W	W	Proceeding Straight	Proceeding Straight
Franklin Blvd at 25th Ave	0		2001	Other	Bicycle	Other Visible Injury	Improper Turning	1	0	Bicyclist	Driver	E	S	Other Unsafe Turning	Proceeding Straight
J St at Alhambra Blvd	186	E	2001	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	W	N	Proceeding Straight	Proceeding Straight
T St at 21st St	0		2001	Other	Bicycle	Other Visible Injury	Unknown	1	0	Driver	Bicyclist		W	Making Right Turn	Proceeding Straight
Florin Rd at Riverside Blvd	99	S	2001	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	S	N	Proceeding Straight	Entering Traffic
Q St at 26th St	4	E	2001	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	W	E	Traveling Wrong Way	Making Left Turn
Valley Hi Dr at Maybelline Way	0		2001	Other	Bicycle	Other Visible Injury	Auto R/W Violation	2	0	Bicyclist	Driver	E	S	Proceeding Straight	Proceeding Straight
35th St at H St	0		2001	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	W	S	Proceeding Straight	Making Right Turn
20th St at D St	0		2001	Other	Bicycle	Complaint of Pain	Driving Under Influence	1	0	Bicyclist	Driver	S	W	Proceeding Straight	Proceeding Straight

City of Sacramento Crossroads Collisions (2000-2002)

LOCATION	DIST	DIR	YEAR	COLLISION TYPE	INVOLVED	EXTENT	PRIMARY COLLISION FACTOR	# INJ	# KLD	PARTY 1	PARTY 2	DOT 1	DOT 2	MOVEMENT PROCEEDING COLLISION 1	MOVEMENT PROCEEDING COLLISION 2
Capitol Mall at 8th St	0		2001	Other	Bicycle	Complaint of Pain	Traffic Signals and Signs	1	0	Driver	Bicyclist	N	E	Proceeding Straight	Proceeding Straight
Freeport Blvd at Vallejo Way	33	S	2001	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	W	N	Proceeding Straight	Stopped in Road
Florin Rd at Roundtree Ct	0		2001	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	W	N	Proceeding Straight	Making Right Turn
North B St at North 12th St	0		2001	Other	Bicycle	Property Damage Only	Wrong Side of Road	0	0	Bicyclist	Driver	N	E	Traveling Wrong Way	Proceeding Straight
I St at 13th St	49	W	2001	Other	Bicycle	Complaint of Pain	Other Hazardous Movement	1	0	Driver	Bicyclist	W	W	Stopped in Road	Proceeding Straight
Alhambra Blvd at N St	0		2001	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	N	E	Proceeding Straight	Making Right Turn
Stockton Blvd at 47th Ave	120	N	2001	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver		E	Entering Traffic	Traveling Wrong Way
W St at 26th St	12	W	2001	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Bicyclist	Driver	N	S	Making Left Turn	Making Right Turn
Del Paso Blvd at Northgate Blvd	175	N	2001	Other	Bicycle	Other Visible Injury	Driving Under Influence	1	0	Bicyclist	Driver	S	S	Proceeding Straight	Proceeding Straight
18th St at Neihart Ave	111	N	2001	Other	Bicycle	Complaint of Pain	Driving Under Influence	1	0	Bicyclist	Driver	W	S	Traveling Wrong Way	Proceeding Straight
Fruitridge Rd at Freeport Blvd	48	E	2001	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	W	E	Traveling Wrong Way	Proceeding Straight
Valley Hi Dr at La Coruna Dr	260	W	2001	Other	Bicycle	Complaint of Pain	Improper Turning	1	0	Bicyclist	Driver	N	E	Making U Turn	Proceeding Straight
West El Camino Ave at Azevedo Dr	0		2001	Other	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Driver	Bicyclist	W	S	Making Right Turn	Proceeding Straight
Marysville Blvd at Grand Ave	18	S	2001	Other	Bicycle	Other Visible Injury	Improper Turning	1	0	Driver	Bicyclist	E	E	Making Right Turn	Entering Traffic
Canova Way at Wardell Way	0		2001	Other	Bicycle	Other Visible Injury	Unknown	1	0	Driver	Bicyclist		S	Proceeding Straight	Proceeding Straight
J St at 48th St	54	W	2001	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	N	W	Entering Traffic	Traveling Wrong Way
24th St at Fernandez Dr (N)	22	N	2001	Other	Bicycle	Other Visible Injury	Improper Turning	1	0	Driver	Bicyclist	S	S	Making Right Turn	Proceeding Straight
Deer River Way at Riverside Blvd	0		2001	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	N		Making Left Turn	Proceeding Straight
24th St at Portola Way	0		2001	Other	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Driver	Bicyclist	N	S	Proceeding Straight	Making Left Turn
Truxel Rd at Waterwheel Dr	11	W	2001	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	E	N	Making Left Turn	Proceeding Straight
15th Ave at 50th St	171	E	2001	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	S	W	Proceeding Straight	Proceeding Straight
BRdway at 23rd St	0		2001	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	S	W	Making Right Turn	Proceeding Straight
Truxel Rd at Pebblewood Dr	0		2001	Other	Bicycle	Other Visible Injury	Other Hazardous Movement	1	0	Driver	Bicyclist	S	S	Making Right Turn	Proceeding Straight
Rio Linda Blvd at Sonoma Ave	34	N	2001	Other	Bicycle	Other Visible Injury	Driving Under Influence	1	0	Bicyclist	Driver	S	S	Entering Traffic	Proceeding Straight
Fair Oaks Blvd at University Ave	0		2001	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	W	E	Making Left Turn	Proceeding Straight
Grand Ave at Rio Linda Blvd	0		2001	Broadside	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Driver	Bicyclist	N	W	Proceeding Straight	Proceeding Straight
Florin Rd at Woodbine Ave	0		2001	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	E	S	Proceeding Straight	Making Right Turn
Pocket Rd at Greenhaven Dr	300	E	2001	Other	Non-Collision	Other Visible Injury	Other Than Driver or Ped	1	0	Bicyclist		W		Proceeding Straight	
Kentwal Dr at Tomasini Way	12	N	2001	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	W	N	Entering Traffic	Proceeding Straight
Folsom Blvd at 55th St	80	W	2001	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	W	N	Traveling Wrong Way	Entering Traffic
H St at 19th St	6	W	2001	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Driver	Bicyclist	E	N	Making Right Turn	Proceeding Straight
30th St at 12th Ave	6	S	2001	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	W	N	Proceeding Straight	Making Right Turn
Fruitridge Rd at Power Inn Rd	0		2001	Other	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Driver	Bicyclist	E	N	Making Right Turn	Proceeding Straight
21st St at J St	0		2001	Sideswipe	Bicycle	Complaint of Pain	Unsafe Lane Change	1	0	Bicyclist	Driver	N	N	Changing Lanes	Proceeding Straight
39th St at 3rd Ave (W)	33	S	2001	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	E	S	Entering Traffic	Making Left Turn
Sutterville Rd at 24th St (1)	0		2001	Other	Bicycle	Other Visible Injury	Improper Turning	1	0	Driver	Bicyclist	E	E	Making Right Turn	Proceeding Straight
BRdway at 28th St	3	W	2001	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	N	E	Proceeding Straight	Proceeding Straight
Natomas Park Dr at Capital Park Dr	0		2001	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	W	N	Making Left Turn	Proceeding Straight
Lemon Hill Ave at 65th Expy	2640	W	2001	Other	Bicycle	Complaint of Pain	Other Hazardous Movement	1	0	Driver	Bicyclist	E	E	Proceeding Straight	Proceeding Straight
Arcade Blvd at Callecita St	18	W	2001	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	W	N	Proceeding Straight	Making Right Turn
Jansen Dr at Ortega St	0		2001	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	S	W	Entering Traffic	Proceeding Straight
36th St at 20th Ave	10	N	2001	Other	Bicycle	Other Visible Injury	Unsafe Speed	1	0	Driver	Bicyclist	N	N	Proceeding Straight	Proceeding Straight
2nd Ave at 21st St (N)	3	E	2001	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	S	W	Traveling Wrong Way	Making Right Turn
28th St at 38th Ave	0	N	2001	Other	Bicycle	Complaint of Pain	Driving Under Influence	1	0	Bicyclist	Driver	N	W	Proceeding Straight	Backing
Azevedo Dr at Pebblewood Dr	26	S	2001	Other	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Driver	Bicyclist	N	E	Making Left Turn	Proceeding Straight
Watt Ave at Longview Dr	0		2001	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	W	E	Proceeding Straight	Making Right Turn
Folsom Blvd at 53rd St	100	E	2001	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	W	W	Traveling Wrong Way	Making Left Turn
Marconi Ave at Connie Dr (W)	0		2001	Other	Bicycle	Severe Injury	Traffic Signals and Signs	1	0	Bicyclist	Driver	W	S	Proceeding Straight	Proceeding Straight
34th Ave at Norman Way (N)	0		2001	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	S	W	Making Left Turn	Proceeding Straight
Y St at 36th St (W)	0		2001	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	N	W	Proceeding Straight	Proceeding Straight
College Town Dr at Hornet Dr	165	E	2001	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	E	W	Proceeding Straight	Entering Traffic
19th St at Meadowview Rd	30	S	2001	Other	Bicycle	Other Visible Injury	Improper Turning	1	0	Driver	Bicyclist	S	S	Making Left Turn	Proceeding Straight
30th St at E St	0		2001	Other	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Bicyclist	Driver	E	N	Proceeding Straight	Proceeding Straight
N St at 29th St	10	W	2001	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Driver	Bicyclist	E	N	Stopped in Road	Proceeding Straight
Lawrence Dr at Fruitridge Rd	0	N	2001	Other	Bicycle	Other Visible Injury	Improper Passing	1	0	Driver	Bicyclist	N	N	Proceeding Straight	Proceeding Straight
24th St at 22nd Ave	0		2001	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	N	E	Proceeding Straight	Stopped in Road
Mack Rd at Center Pkwy	195	W	2001	Other	Bicycle	Complaint of Pain	Unsafe Lane Change	1	0	Bicyclist	Driver	E	E	Changing Lanes	Proceeding Straight
Clay St at Glenrose Ave	0		2001	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	N	W	Proceeding Straight	Proceeding Straight

City of Sacramento Crossroads Collisions (2000-2002)

LOCATION	DIST	DIR	YEAR	COLLISION TYPE	INVOLVED	EXTENT	PRIMARY COLLISION FACTOR	# INJ	# KLD	PARTY 1	PARTY 2	DOT 1	DOT 2	MOVEMENT PROCEEDING COLLISION 1	MOVEMENT PROCEEDING COLLISION 2
Alhambra Blvd at Mc Kinley Blvd	0		2001	Other	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Bicyclist	Driver	N	W	Proceeding Straight	Proceeding Straight
South Ave at Cypress St	0		2001	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	S	E	Proceeding Straight	Proceeding Straight
Rio Linda Blvd at Bell Ave	0		2001	Other	Bicycle	Severe Injury	Traffic Signals and Signs	1	0	Bicyclist	Driver	E	N	Proceeding Straight	Proceeding Straight
Stockton Blvd at Alhambra Blvd	15	E	2001	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	N	S	Proceeding Straight	Making Left Turn
Lemon Hill Ave at 65th Expy	15	W	2001	Other	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Driver	Bicyclist	W	N	Making Left Turn	Other
Lemon Hill Ave at 65th Expy	90	W	2001	Broadside	Bicycle	Property Damage Only	Wrong Side of Road	0	0	Driver	Bicyclist	W	N	Proceeding Straight	Proceeding Straight
L St at 21st St	0		2001	Other	Bicycle	Complaint of Pain	Other Hazardous Movement	1	0	Bicyclist	Driver	E	N	Stopped in Road	Proceeding Straight
Franklin Blvd at Mack Rd	100	N	2001	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	S	W	Traveling Wrong Way	Entering Traffic
Florin Rd at Franklin Blvd	0		2001	Other	Bicycle	Complaint of Pain	Unknown	1	0	Bicyclist	Driver	W	S	Proceeding Straight	Proceeding Straight
Grove Ave at El Camino Ave	0		2001	Other	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Bicyclist	Driver	N	W	Proceeding Straight	Proceeding Straight
Mack Rd at Tangerine Ave	225	E	2001	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Driver	Bicyclist	N	W	Proceeding Straight	Proceeding Straight
8th Ave at 40th St	0		2001	Other	Bicycle	Complaint of Pain	Traffic Signals and Signs	1	0	Driver	Bicyclist	W	N	Proceeding Straight	Proceeding Straight
Sutterville Rd at Jeffrey Ave	80	W	2001	Other	Bicycle	Other Visible Injury	Driving Under Influence	1	0	Bicyclist	Driver	E	E	Changing Lanes	Proceeding Straight
Land Park Dr at BRdway	0		2001	Other	Bicycle	Complaint of Pain	Unknown	1	0	Driver	Bicyclist	S	S	Making Left Turn	Proceeding Straight
N St at Alhambra Blvd	6	E	2001	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Bicyclist	Driver	N	E	Proceeding Straight	Making Right Turn
Riverside Blvd at W St	0		2001	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	N	S	Making Left Turn	Proceeding Straight
2nd Ave at Franklin Blvd	100	E	2001	Other	Bicycle	Other Visible Injury	Improper Turning	1	0	Bicyclist	Driver	W	W	Making Left Turn	Proceeding Straight
Rio Linda Blvd at Marysville Blvd	0		2001	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	N	E	Proceeding Straight	Making Left Turn
Martin Luther King Blvd at 8th Ave	0		2001	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	W		Making Left Turn	Proceeding Straight
D St at 39th St	0		2001	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	W	W	Proceeding Straight	Making Left Turn
Ehrhardt Ave at Center Pkwy	252	W	2001	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Driver	Bicyclist	E	W	Proceeding Straight	Making Left Turn
Florin Rd at Greenhaven Dr	528	E	2001	Rear-End	Bicycle	Complaint of Pain	Unsafe Speed	1	0	Driver	Bicyclist	W	W	Proceeding Straight	Proceeding Straight
J St at 16th St	0		2001	Broadside	Bicycle	Other Visible Injury	Other Hazardous Movement	1	0	Driver	Bicyclist	N	E	Proceeding Straight	Proceeding Straight
Truxel Rd at Waterwheel Dr	18	N	2001	Other	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	S	N	Proceeding Straight	Making Right Turn
65th St at 14th Ave (W)	155	N	2001	Other	Bicycle	Severe Injury	Driving Under Influence	1	0	Driver	Bicyclist	S	S	Proceeding Straight	Proceeding Straight
Austin St at Las Animas Circle (N)	0		2001	Other	Bicycle	Complaint of Pain	Lights	1	0	Bicyclist	Driver	N	S	Proceeding Straight	Making Left Turn
Grandstaff Dr at Cherrywood Circle (N)	100	N	2001	Other	Bicycle	Complaint of Pain	Other Improper Driving	1	0	Bicyclist	Driver	N	N	Proceeding Straight	Making Right Turn
Roseville Rd at Connie Dr	3168	N	2001	Other	Bicycle	Property Damage Only	Wrong Side of Road	0	0	Bicyclist	Driver	N	N	Proceeding Straight	Proceeding Straight
33rd St at J St	78	S	2001	Other	Bicycle	Other Visible Injury	Unsafe Speed	1	0	Bicyclist	Driver	N	N	Proceeding Straight	Stopped in Road
Valley Hi Dr at Wyndham Dr	50	N	2001	Sideswipe	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Driver	Bicyclist	S	N	Proceeding Straight	Traveling Wrong Way
Richards Blvd at Rt 5 Sbon/R	0		2001	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Driver	Bicyclist	W	E	Making Left Turn	Proceeding Straight
Power Inn Rd at 33rd Ave	105	S	2001	Rear-End	Bicycle	Complaint of Pain	Unknown	1	0	Driver	Bicyclist	S	S	Proceeding Straight	Proceeding Straight
2nd Ave at 36th St	56	W	2001	Other	Bicycle	Fatal	Wrong Side of Road	0	1	Bicyclist	Driver	N	E	X to Opp Ln-Unpind	Proceeding Straight
Exposition Blvd at Tribute Rd	246	E	2001	Other	Bicycle	Property Damage Only	Other Hazardous Movement	0	0	Bicyclist	Driver	E	E	Changing Lanes	Proceeding Straight
Folsom Blvd at 48th St (W)	100	W	2001	Other	Bicycle	Other Visible Injury	Driving Under Influence	2	0	Driver	Bicyclist	E	E	Proceeding Straight	Proceeding Straight
Plaza Ave at Rio Linda Blvd	0		2001	Other	Bicycle	Complaint of Pain	Unsafe Speed	1	0	Driver	Bicyclist			Traveling Wrong Way	Traveling Wrong Way
Fruitridge Rd at 63rd St	0		2001	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist		W	Entering Traffic	Proceeding Straight
37th St at 7th Ave	0		2001	Other	Bicycle	Severe Injury	Wrong Side of Road	1	0	Driver	Bicyclist	S	N	Proceeding Straight	Proceeding Straight
M St at 39th St	177	E	2001	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Driver	Bicyclist	N	E	Making Left Turn	Proceeding Straight
21st St at J St	148	S	2001	Other	Bicycle	Complaint of Pain	Unknown	1	0	Bicyclist	Driver	S	E	Not Stated	Not Stated
8th Ave at Santa Cruz Way	0		2001	Other	Bicycle	Other Visible Injury	Unknown	1	0	Driver	Bicyclist	S	W	Proceeding Straight	Proceeding Straight
16th St at N St	0		2001	Broadside	Bicycle	Other Visible Injury	Unknown	1	0	Driver	Bicyclist	N	W	Proceeding Straight	Proceeding Straight

2002 Accidents

Deer Lake Dr at Armadale Way	0		2002	Sideswipe	Bicycle	Property Damage Only	Traffic Signals and Signs	0	0	Driver	Bicyclist	W	N	Other Unsafe Turning	Proceeding Straight
Northgate Blvd at Cleveland Ave	62	S	2002	Rear-End	Bicycle	Severe Injury	Other Improper Driving	1	0	Driver	Bicyclist	N	N	Proceeding Straight	Proceeding Straight
South Ave at Ivy St	128	W	2002	Other	Bicycle	Other Visible Injury	Other Improper Driving	1	0	Bicyclist	Driver	N	W	Entering Traffic	Proceeding Straight
Alta Arden Expy at Ethan Way	0		2002	Broadside	Bicycle	Complaint of Pain	Wrong Side of Road	2	0	Bicyclist	Driver	E	S	Proceeding Straight	Making Right Turn
34th St at 2nd Ave	15	N	2002	Broadside	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Bicyclist	Driver	E	N	Entering Traffic	Proceeding Straight
Brookfield Dr at Franklin Blvd	0		2002	Broadside	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	N	W	Proceeding Straight	Making Right Turn
Mc Glashan St at Lawrence Dr	30	N	2002	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Driver	Bicyclist	N	S	Making Right Turn	Proceeding Straight
Mc Kinley Blvd at 33rd St	100	W	2002	Sideswipe	Bicycle	Complaint of Pain	Other Hazardous Movement	1	0	Bicyclist	Other	E	W	Proceeding Straight	Parked
57th St at J St	555	S	2002	Broadside	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Driver	Bicyclist	N	S	Entering Traffic	Proceeding Straight
Freeport Blvd at 35th Ave	0		2002	Broadside	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Bicyclist	Driver	S	E	Proceeding Straight	Making Left Turn
Del Paso Blvd at Boxwood St	9	S	2002	Broadside	Bicycle	Severe Injury	Unknown	2	0	Driver	Bicyclist	S	S	Proceeding Straight	Not Stated
San Juan Rd at Rosin Blvd	69	W	2002	Broadside	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	N	W	Traveling Wrong Way	Proceeding Straight
Marconi Ave at Marconi Circle	0		2002	Broadside	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Driver	Bicyclist	E	E	Stopped In Road	Proceeding Straight
Ortega St at Mc Mahon Dr	36	S	2002	Broadside	Bicycle	Complaint of Pain	Wrong Side of Road	2	0	Bicyclist	Driver	N	S	Traveling Wrong Way	Proceeding Straight

City of Sacramento Crossroads Collisions (2000-2002)

LOCATION	DIST	DIR	YEAR	COLLISION TYPE	INVOLVED	EXTENT	PRIMARY COLLISION FACTOR	# INJ	# KLD	PARTY 1	PARTY 2	DOT 1	DOT 2	MOVEMENT PROCEEDING COLLISION 1	MOVEMENT PROCEEDING COLLISION 2
Neal Rd at Dry Creek Rd	300	W	2002	Other	Bicycle	Other Visible Injury	Unknown	1	0	Bicyclist	Driver	W	W	Proceeding Straight	Proceeding Straight
Taylor St at Granger Ave	80	S	2002	Broadside	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Bicyclist	Driver	E	S	Proceeding Straight	Proceeding Straight
Valley Hi Dr at Bruceville Rd	507	N	2002	Broadside	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	W	N	Entering Traffic	Proceeding Straight
I St at 17th St	0		2002	Broadside	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	E	S	Proceeding Straight	Stopped In Road
Power Inn Rd at Lemon Hill Ave	0		2002	Broadside	Bicycle	Property Damage Only	Traffic Signals and Signs	0	0	Bicyclist	Driver	W	N	Proceeding Straight	Proceeding Straight
24th St at Wah Ave	215	S	2002	Broadside	Bicycle	Property Damage Only	Wrong Side of Road	0	1	Bicyclist	Driver	W	S	Proceeding Straight	Proceeding Straight
La Solidad Way at BRdway	168	N	2002	Other	Bicycle	Complaint of Pain	Improper Turning	1	0	Bicyclist	Driver	E	S	Other Unsafe Turning	Proceeding Straight
14th St at BRdway	138	N	2002	Broadside	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	S	N	Traveling Wrong Way	Proceeding Straight
23rd St at R St	16	N	2002	Broadside	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	W	S	Proceeding Straight	Proceeding Straight
Del Paso Blvd at Arden Way (W)	20	S	2002	Broadside	Bicycle	Severe Injury	Wrong Side of Road	1	0	Bicyclist	Driver	N	S	Traveling Wrong Way	Proceeding Straight
Fruitridge Rd at 62nd St	48	E	2002	Broadside	Bicycle	Complaint of Pain	Improper Turning	1	0	Bicyclist	Driver	E	E	Other Unsafe Turning	Proceeding Straight
Grand Ave at Branch St	0		2002	Broadside	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	S	W	Proceeding Straight	Proceeding Straight
W St at 5th St	0		2002	Broadside	Bicycle	Other Visible Injury	Unknown	1	0	Driver	Bicyclist	W	S	Proceeding Straight	Proceeding Straight
Norwood Ave at Jessie Ave	15	S	2002	Sideswipe	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	E	S	Proceeding Straight	Making Right Turn
Elm St at North Ave	150	S	2002	Broadside	Bicycle	Complaint of Pain	Unknown	1	0	Bicyclist	Driver	E	S	Entering Traffic	Proceeding Straight
21st Ave at 65th Expy	0		2002	Broadside	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	N	E	Proceeding Straight	Proceeding Straight
Truxel Rd at West El Camino Ave	300	N	2002	Broadside	Bicycle	Other Visible Injury	Other Hazardous Movement	1	0	Bicyclist	Driver	S	W	Proceeding Straight	Stopped In Road
Del Paso Blvd at Darina Ave	0		2002	Broadside	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	E	N	Proceeding Straight	Proceeding Straight
2nd Ave at BRdway	42	W	2002	Sideswipe	Bicycle	Other Visible Injury	Other Equipment	1	0	Driver	Bicyclist	W	W	Proceeding Straight	Proceeding Straight
Arena Blvd at Gateway Park Blvd	16	W	2002	Broadside	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	W	E	Making Left Turn	Proceeding Straight
47th Ave at 47th St	37	E	2002	Broadside	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	N	E	Proceeding Straight	Proceeding Straight
Rio Linda Blvd at Ford Rd	71	N	2002	Broadside	Bicycle	Other Visible Injury	Other Hazardous Movement	1	0	Bicyclist	Driver	S	N	Traveling Wrong Way	X to Opp Ln-Unplnd
Rio Linda Blvd at Arcade Blvd	150	S	2002	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	W	N	Entering Traffic	Proceeding Straight
Fruitridge Rd at 62nd St	0		2002	Broadside	Bicycle	Property Damage Only	Traffic Signals and Signs	0	0	Bicyclist	Driver	E	N	Proceeding Straight	Proceeding Straight
Freeport Blvd at 2nd Ave	12	S	2002	Broadside	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Bicyclist	Driver	W	S	Proceeding Straight	Proceeding Straight
I St at 19th St	183	E	2002	Broadside	Bicycle	Other Visible Injury	Other Hazardous Movement	1	0	Bicyclist	Driver	E	N	Stopped In Road	Stopped In Road
El Camino Ave at Evergreen St	0		2002	Broadside	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Driver	Bicyclist	W	N	Proceeding Straight	Entering Traffic
Morrison Ave at Vern St	140	E	2002	Broadside	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	N	W	Making Right Turn	Proceeding Straight
Western Ave at Scoles Ct	143	N	2002	Broadside	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	W	N	Entering Traffic	Proceeding Straight
14th St at End1	48	S	2002	Sideswipe	Bicycle	Complaint of Pain	Unsafe Starting or Backing	1	0	Driver	Bicyclist	W	N	Backing	Proceeding Straight
Jasmine St at North Ave	0		2002	Broadside	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Bicyclist	Driver	W	W	Traveling Wrong Way	Proceeding Straight
12th Ave at 30th St	0		2002	Rear-End	Bicycle	Complaint of Pain	Traffic Signals and Signs	1	0	Driver	Bicyclist	E	E	Making Right Turn	Proceeding Straight
H St at 30th St	0		2002	Other	Bicycle	Complaint of Pain	Improper Turning	1	0	Driver	Bicyclist	W	W	Making Right Turn	Proceeding Straight
Summerview Way at Bamford Dr	9	N	2002	Broadside	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	E	N	Traveling Wrong Way	Proceeding Straight
H St at 24th St	0		2002	Other	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Driver	Bicyclist	S	W	Proceeding Straight	Proceeding Straight
Auburn Blvd at Watt Ave	165	E	2002	Broadside	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	S	W	Proceeding Straight	Proceeding Straight
14th Ave at 42nd St	0		2002	Rear-End	Bicycle	Other Visible Injury	Improper Turning	1	0	Driver	Bicyclist	W	W	Proceeding Straight	Proceeding Straight
Hanford Way at Bamford Dr	10	S	2002	Broadside	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	S	N	Traveling Wrong Way	Proceeding Straight
13th Ave at Freeport Blvd	0		2002	Sideswipe	Bicycle	Other Visible Injury	Improper Turning	1	0	Driver	Bicyclist	N	N	Proceeding Straight	Proceeding Straight
Northgate Blvd at Rosin Ct	63	S	2002	Broadside	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	N	W	Proceeding Straight	Making Right Turn
Rio Linda Blvd at Acacia Ave	0		2002	Broadside	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Bicyclist	Driver	E	S	Making Right Turn	Proceeding Straight
Martin Luther King Blvd at 24th Ave	60	S	2002	Broadside	Bicycle	Fatal	Improper Turning	0	1	Driver	Bicyclist	S	E	Proceeding Straight	Entering Traffic
42nd St at Folsom Blvd	0		2002	Broadside	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	E	S	Proceeding Straight	Making Right Turn
BRdway at 21st St	162	E	2002	Broadside	Bicycle	Complaint of Pain	Unknown	1	0	Bicyclist	Driver	E	S	Traveling Wrong Way	Other
Golden Oak Way at Silver Oak Way	0		2002	Broadside	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Driver	Bicyclist	S	N	Making Left Turn	Proceeding Straight
23rd St at Irvin Way	15	N	2002	Broadside	Bicycle	Other Visible Injury	Lights	1	0	Bicyclist	Driver	W	E	Proceeding Straight	Making Left Turn
19th St at O St	200	S	2002	Broadside	Bicycle	Complaint of Pain	Other Hazardous Movement	1	0	Bicyclist	Driver	N	W	Proceeding Straight	Stopped In Road
65th St at Folsom Blvd	21	N	2002	Broadside	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Driver	Bicyclist	S	W	Proceeding Straight	Proceeding Straight
Norwood Ave at Las Palmas Ave	0		2002	Broadside	Bicycle	Complaint of Pain	Other Hazardous Movement	1	0	Bicyclist	Driver	E	S	Proceeding Straight	Proceeding Straight
30th St at Capitol Ave	0		2002	Other	Bicycle	Severe Injury	Traffic Signals and Signs	1	0	Driver	Bicyclist	N	W	Proceeding Straight	Proceeding Straight
Nedra Ct at Deluna Ct	23	E	2002	Broadside	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	E	W	Making Left Turn	Stopped In Road
5th St at P St	120	N	2002	Broadside	Bicycle	Property Damage Only	Wrong Side of Road	0	0	Bicyclist	Driver	S	W	Traveling Wrong Way	Entering Traffic
14th Ave at 60th St (W)	0		2002	Broadside	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Driver	Bicyclist	N	E	Entering Traffic	Proceeding Straight
J St at 10th St	0		2002	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Driver	Bicyclist	E	N	Making Left Turn	Proceeding Straight
Rio Linda Blvd at El Camino Ave	0		2002	Other	Bicycle	Severe Injury	Lights	1	0	Driver	Bicyclist	E	S	Proceeding Straight	Proceeding Straight
33rd St at W St	160	S	2002	Other	Bicycle	Property Damage Only	Auto R/W Violation	0	0	Bicyclist	Driver	E	S	Entering Traffic	Proceeding Straight
El Mango Way at G Pkwy	150	S	2002	Broadside	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	E	N	Making Right Turn	Proceeding Straight
10th St at K St	160	S	2002	Broadside	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	S	W	Proceeding Straight	Entering Traffic

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Norwood Ave at Jessie Ave	240	N	2002	Broadside	Bicycle	Complaint of Pain	Other Hazardous Movement	1	0	Bicyclist	Driver	N	E	Traveling Wrong Way	Making Right Turn
Stockton Blvd at 2nd Ave	123	N	2002	Broadside	Bicycle	Other Visible Injury	Improper Passing	1	0	Bicyclist	Driver	N	N	Proceeding Straight	Making Right Turn
Bell Ave at Englewood St	0		2002	Head-On	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Bicyclist	Driver	N	E	Making U Turn	Proceeding Straight
BRdway at Santa Cruz Way	11	E	2002	Head-On	Bicycle	Other Visible Injury	Other Hazardous Movement	1	0	Bicyclist	Driver	W	N	Proceeding Straight	Making Right Turn
2nd Ave at 39th St	528	W	2002	Other	Bicycle	Other Visible Injury	Unsafe Starting or Backing	1	0	Driver	Bicyclist	N	E	Backing	Proceeding Straight
El Camino Ave at Western Ave	144	E	2002	Other	Bicycle	Other Visible Injury	Improper Turning	1	0	Driver	Bicyclist	W	W	Proceeding Straight	Entering Traffic
28th St at 29th Ave	120	N	2002	Other	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Driver	Bicyclist	W	S	Entering Traffic	Proceeding Straight
Meadowview Rd at 29th St	87	W	2002	Broadside	Bicycle	Complaint of Pain	Unsafe Speed	2	0	Driver	Bicyclist	W	S	Proceeding Straight	Entering Traffic
Bruceville Rd at Calvine Rd	0		2002	Broadside	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	N	S	Stopped In Road	Making Right Turn
23rd St at W St	0		2002	Broadside	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Bicyclist	Driver	E	S	Proceeding Straight	Slowing/Stopping
West El Camino Ave at Erin Dr	150	W	2002	Other	Bicycle	Other Visible Injury	Improper Turning	1	0	Bicyclist	Driver	E	E	Other	Other Unsafe Turning
Grand Ave at Branch St	18	E	2002	Broadside	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	W	N	Traveling Wrong Way	Making Right Turn
BRdway at 39th St	0		2002	Broadside	Bicycle	Property Damage Only	Traffic Signals and Signs	0	0	Bicyclist	Driver	N	E	Proceeding Straight	Proceeding Straight
Freeport Blvd at 7th Ave	77	N	2002	Other	Bicycle	Other Visible Injury	Improper Turning	1	0	Bicyclist	Driver	S	S	Other Unsafe Turning	Proceeding Straight
College Town Dr at Hornet Dr	225	E	2002	Other	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	E	S	Proceeding Straight	Making Right Turn
15th St at H St	104	S	2002	Broadside	Bicycle	Complaint of Pain	Other Hazardous Movement	1	0	Bicyclist	Driver	N	E	Proceeding Straight	Making Right Turn
Garden Highway at Northgate Blvd (N)	1583	W	2002	Broadside	Bicycle	Other Visible Injury	Other Hazardous Movement	1	0	Bicyclist	Driver	S	W	Making Left Turn	Proceeding Straight
San Juan Rd at Truxel Rd	0		2002	Broadside	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Driver	Bicyclist	W	E	Making Left Turn	Proceeding Straight
E St at 10th St	0		2002	Broadside	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	W	N	Proceeding Straight	Proceeding Straight
Lemon Hill Ave at Stockton Blvd	0		2002	Broadside	Bicycle	Complaint of Pain	Other Hazardous Movement	1	0	Bicyclist	Driver	S	W	Proceeding Straight	Proceeding Straight
30th St at E St	20	S	2002	Sideswipe	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	S	N	Proceeding Straight	Proceeding Straight
24th St at North Manor Dr	146	N	2002	Broadside	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Driver	Bicyclist	S	S	Making Right Turn	Proceeding Straight
Hurley Way at Ethan Way	0		2002	Broadside	Bicycle	Property Damage Only	Auto R/W Violation	0	0	Bicyclist	Driver	E	S	Entering Traffic	Proceeding Straight
North 12th St at North B St	0		2002	Broadside	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	N	E	Traveling Wrong Way	Proceeding Straight
M St at 55th St	0		2002	Broadside	Bicycle	Property Damage Only	Auto R/W Violation	0	0	Driver	Bicyclist	E	E	Making Left Turn	Proceeding Straight
17th St at I St	45	N	2002	Broadside	Bicycle	Complaint of Pain	Other Improper Driving	1	0	Driver	Bicyclist	W	N	Entering Traffic	Proceeding Straight
P St at 30th St	0		2002	Head-On	Bicycle	Complaint of Pain	Other Hazardous Movement	1	0	Bicyclist	Driver	E	N	Traveling Wrong Way	Making U Turn
30th St at 12th Ave	1	S	2002	Broadside	Bicycle	Property Damage Only	Wrong Side of Road	0	0	Bicyclist	Driver	W	N	Proceeding Straight	Making Right Turn
Traction Ave at Plaza Ave	78	N	2002	Broadside	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	N	W	Proceeding Straight	Making U Turn
Capitol Mall at Neasham Circle (W)	0		2002	Broadside	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Driver	Bicyclist	S	E	Making Right Turn	Proceeding Straight
R St at 27th St	66	E	2002	Sideswipe	Bicycle	Complaint of Pain	Unknown	1	0	Bicyclist	Driver	E	E	Proceeding Straight	Proceeding Straight
12th Ave at Rt 99 Nbon/R	30	W	2002	Sideswipe	Bicycle	Property Damage Only	Improper Turning	0	0	Bicyclist	Driver	E	E	Making Left Turn	Making Left Turn
La Pera Ct at La Fresa Ct	51	W	2002	Sideswipe	Bicycle	Complaint of Pain	Other Improper Driving	1	0	Driver	Bicyclist	E	E	Other Unsafe Turning	Proceeding Straight
21st Ave at 63rd St (N)	6	W	2002	Broadside	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Driver	Bicyclist	E	N	Proceeding Straight	Proceeding Straight
Truxel Rd at West El Camino Ave	0		2002	Broadside	Bicycle	Complaint of Pain	Ped R/W Violation	1	0	Driver	Bicyclist	S	W	Slowing/Stopping	Proceeding Straight
Christie Ct at Shelden St	60	E	2002	Broadside	Bicycle	Other Visible Injury	Unsafe Speed	1	0	Other	Bicyclist	N	W	Parked	Proceeding Straight
47th Ave at 25th St	0		2002	Head-On	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Bicyclist	Driver	S	W	Entering Traffic	Proceeding Straight
Stockton Blvd at Mc Mahon Dr	0		2002	Broadside	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	S	W	Proceeding Straight	Making Right Turn
E St at 12th St	0		2002	Sideswipe	Bicycle	Property Damage Only	Traffic Signals and Signs	0	0	Bicyclist	Driver	W	N	Proceeding Straight	Proceeding Straight
T St at Alhambra Blvd (1)	0		2002	Other	Bicycle	Other Visible Injury	Unknown	1	0	Bicyclist		W		Proceeding Straight	
Mack Rd at Center Pkwy	110	W	2002	Broadside	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	S	E	Proceeding Straight	Proceeding Straight
58th St at Fruitridge Rd	0		2002	Broadside	Bicycle	Property Damage Only	Wrong Side of Road	0	0	Driver	Bicyclist	S	E	Making Right Turn	Proceeding Straight
67th St at 38th Ave	252	S	2002	Sideswipe	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	S	S	Other Unsafe Turning	Proceeding Straight
11th Ave at 43rd St	132	W	2002	Sideswipe	Bicycle	Property Damage Only	Unknown	0	0	Driver	Bicyclist	W	E	Proceeding Straight	Parked
Greenhaven Dr at Windbridge Dr	0		2002	Broadside	Bicycle	Complaint of Pain	Traffic Signals and Signs	1	0	Driver	Bicyclist	S	E	Making Left Turn	Other
25th St at BRdway	150	N	2002	Other	Bicycle	Complaint of Pain	Unknown	1	0	Bicyclist	Driver	N	E	Proceeding Straight	Slowing/Stopping
Richards Blvd at North 10th St	463	W	2002	Broadside	Bicycle	Other Visible Injury	Wrong Side of Road	2	0	Bicyclist	Driver	W	N	Proceeding Straight	Proceeding Straight
BRdway at 2nd Ave	24	W	2002	Rear-End	Bicycle	Complaint of Pain	Improper Turning	1	0	Bicyclist	Driver	W	W	Making Left Turn	Proceeding Straight
Caselli Circle at Franklin Blvd	5	W	2002	Broadside	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	N	E	Proceeding Straight	Making Right Turn
Marconi Ave at Connie Dr (E)	204	E	2002	Sideswipe	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	W	E	Proceeding Straight	Ran Off Road
Franklin Blvd at Sutterville Rd	22	S	2002	Broadside	Bicycle	Property Damage Only	Auto R/W Violation	0	0	Bicyclist	Driver	E	S	Entering Traffic	Making Right Turn
Silver Eagle Rd at Norwood Ave	0		2002	Broadside	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Bicyclist	Driver	S	W	Proceeding Straight	Proceeding Straight
Marconi Ave at Kenwood St	1056	E	2002	Broadside	Bicycle	Severe Injury	Unknown	1	0	Driver	Bicyclist	E	N	Proceeding Straight	Other
Stockton Blvd at Fruitridge Rd	270	N	2002	Broadside	Bicycle	Property Damage Only	Wrong Side of Road	0	0	Bicyclist	Driver	N	E	Proceeding Straight	Proceeding Straight
Jessie Ave at Taylor St	12	W	2002	Head-On	Bicycle	Property Damage Only	Improper Turning	0	0	Bicyclist	Driver	W	E	Making Left Turn	Stopped In Road
Santa Cruz Way at 11th Ave	150	N	2002	Broadside	Bicycle	Other Visible Injury	Unsafe Speed	2	0	Driver	Bicyclist	N	S	Making Left Turn	Proceeding Straight
H St at San Miguel Way	78	E	2002	Broadside	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	N	E	Entering Traffic	Proceeding Straight
Kenwood St at Academy Way	0		2002	Broadside	Bicycle	Other Visible Injury	Other Hazardous Movement	1	0	Bicyclist	Driver	S	W	Making Left Turn	Making Right Turn

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P St at 7th St	15	W	2002	Sideswipe	Bicycle	Other Visible Injury	Improper Turning	1	0	Bicyclist	Driver	W	W	Changing Lanes	Proceeding Straight
North 12th St at North B St	0		2002	Broadside	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Bicyclist	Driver	N	W	Proceeding Straight	Proceeding Straight
J St at 24th St	0		2002	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	E	N	Proceeding Straight	Proceeding Straight
Norwood Ave at Carroll Ave	40	N	2002	Other	Bicycle	Severe Injury	Wrong Side of Road	1	0	Bicyclist	Driver	N	E	Proceeding Straight	Entering Traffic
Fruitridge Rd at 49th St	35	E	2002	Broadside	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Bicyclist	Driver	S	W	Other	Proceeding Straight
Raley Blvd at Ascot Ave	1	S	2002	Rear-End	Bicycle	Other Visible Injury	Other Hazardous Movement	1	0	Bicyclist	Driver	S	S	Proceeding Straight	Proceeding Straight
Franklin Blvd at Calvine Rd	0		2002	Broadside	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	S	W	Proceeding Straight	Making Right Turn
Stockton Blvd at Jimolene Dr	86	N	2002	Broadside	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Driver	Bicyclist	S	S	Entering Traffic	Traveling Wrong Way
Fruitridge Rd at 64th St (E)	6	W	2002	Broadside	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Bicyclist	Driver	S	E	Proceeding Straight	Proceeding Straight
D St at 46th St	33	E	2002	Rear-End	Bicycle	Property Damage Only	Unsafe Speed	0	0	Bicyclist	Driver	E	W	Proceeding Straight	Parked
South Watt Ave at Folsom Blvd	10	S	2002	Broadside	Bicycle	Property Damage Only	Traffic Signals and Signs	0	0	Bicyclist	Driver	N	S	Proceeding Straight	Proceeding Straight
Meadowview Rd at Tamoshanter Way	0		2002	Head-On	Bicycle	Other Visible Injury	Driving Under Influence	1	0	Bicyclist	Driver	E	S	Proceeding Straight	Making Right Turn
8th Ave at Stockton Blvd	0		2002	Broadside	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	W	S	Making Left Turn	Proceeding Straight
Truxel Rd at San Juan Rd	0		2002	Broadside	Bicycle	Property Damage Only	Wrong Side of Road	0	0	Bicyclist	Driver	E	S	Other	Making Right Turn
17th Ave at 54th St	0		2002	Broadside	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Bicyclist	Driver	W	N	Proceeding Straight	Proceeding Straight
Modell Way at Mosby St	100	S	2002	Sideswipe	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	N	S	Proceeding Straight	Proceeding Straight
22nd St at Pierre Ave	210	N	2002	Sideswipe	Bicycle	Other Visible Injury	Improper Turning	1	0	Bicyclist	Driver	S	S	Making Right Turn	Proceeding Straight
37th St at Y St	0		2002	Broadside	Bicycle	Other Visible Injury	Unsafe Speed	2	0	Driver	Bicyclist	S	W	Proceeding Straight	Proceeding Straight
W St at Riverside Blvd	0		2002	Sideswipe	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Bicyclist	Driver	N	W	Making Left Turn	Proceeding Straight
Alhambra Blvd at Carly Way	24	N	2002	Broadside	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	S	N	Making Left Turn	Proceeding Straight
Watt Ave at Auburn Blvd	420	N	2002	Other	Bicycle	Other Visible Injury	Other Improper Driving	1	0	Driver	Bicyclist	S	S	Proceeding Straight	Proceeding Straight
11th St at I St	100	S	2002	Broadside	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	W	S	Making Left Turn	Proceeding Straight
Fruitridge Rd at Stockton Blvd	120	W	2002	Broadside	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	E	S	Proceeding Straight	Entering Traffic
30th St at Capitol Ave	60	N	2002	Broadside	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	S	W	Proceeding Straight	Proceeding Straight
Caselli Circle at Weymouth Lane	0		2002	Broadside	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Driver	Bicyclist	E	N	Proceeding Straight	Proceeding Straight
V St at Stockton Blvd	12	E	2002	Broadside	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	S	W	Entering Traffic	Making Right Turn
La Solidad Way at BRdway	97	W	2002	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	S	E	Proceeding Straight	Entering Traffic
Meadowview Rd at Coral Gables Ct	0		2002	Sideswipe	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	S	W	Proceeding Straight	Proceeding Straight
10th St at I St	221	N	2002	Head-On	Bicycle	Other Visible Injury	Driving Under Influence	1	0	Bicyclist	Driver	S	N	Traveling Wrong Way	Entering Traffic
22nd St at N St	0		2002	Broadside	Bicycle	Other Visible Injury	Driving Under Influence	1	0	Bicyclist	Driver	E	S	Proceeding Straight	Proceeding Straight
16th St at N St	200	S	2002	Other	Bicycle	Other Visible Injury	Other Hazardous Movement	1	0	Bicyclist	Driver	N	N	Proceeding Straight	Parked
L St at Alhambra Blvd	5	E	2002	Broadside	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	S	W	Proceeding Straight	Proceeding Straight
J St at 26th St	0		2002	Other	Bicycle	Property Damage Only	Traffic Signals and Signs	0	0	Bicyclist	Driver	N	E	Proceeding Straight	Proceeding Straight
20th St at D St	0		2002	Broadside	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Driver	Bicyclist	W	N	Proceeding Straight	Proceeding Straight
60th Ave at Cromwell Way	20	E	2002	Sideswipe	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	W	E	Proceeding Straight	Making Left Turn
Howe Ave at Fair Oaks Blvd	12	N	2002	Head-On	Bicycle	Complaint of Pain	Other Hazardous Movement	1	0	Driver	Bicyclist	N	S	Making Right Turn	Traveling Wrong Way
K St at 18th St	54	E	2002	Sideswipe	Bicycle	Other Visible Injury	Improper Turning	1	0	Driver	Bicyclist	E	E	Proceeding Straight	Changing Lanes
Norwood Ave at Jessie Ave	9	N	2002	Broadside	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	E	S	Proceeding Straight	Making Left Turn
8th St at H St	75	S	2002	Sideswipe	Bicycle	Complaint of Pain	Other Hazardous Movement	1	0	Driver	Bicyclist	N	N	Other	Proceeding Straight
San Diego Way at 6th Ave	0		2002	Head-On	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Bicyclist	Driver	W	N	Making Left Turn	Proceeding Straight
Franklin Blvd at Armadale Way	51	S	2002	Broadside	Bicycle	Complaint of Pain	Improper Turning	1	0	Bicyclist	Driver	S	S	Entering Traffic	Proceeding Straight
24th St at 57th Ave	0		2002	Broadside	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Driver	Bicyclist	W	S	Making Right Turn	Proceeding Straight
Normington Dr at Arundel Way	0		2002	Broadside	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Bicyclist	Driver	E	N	Proceeding Straight	Proceeding Straight
Vern St at Morrison Ave	9	S	2002	Other	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	W	N	Making Left Turn	Proceeding Straight
50th Ave at Carnation Ave	0		2002	Broadside	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	S	W	Proceeding Straight	Proceeding Straight
J St at 12th St	75	E	2002	Broadside	Bicycle	Other Visible Injury	Improper Turning	1	0	Driver	Bicyclist	N	E	Making Right Turn	Proceeding Straight
2nd Ave at 36th St	0		2002	Broadside	Bicycle	Property Damage Only	Wrong Side of Road	0	0	Bicyclist	Driver	N	E	Proceeding Straight	Proceeding Straight
South Land Park Dr at Greenhaven Dr	0		2002	Broadside	Bicycle	Severe Injury	Auto R/W Violation	2	0	Driver	Bicyclist	W	E	Making Left Turn	Proceeding Straight
35th Ave at Gloria Dr	0		2002	Broadside	Bicycle	Severe Injury	Auto R/W Violation	1	0	Driver	Bicyclist	W	W	Making Left Turn	Proceeding Straight
Watt Ave at Longview Dr	1	E	2002	Head-On	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	N	E	Proceeding Straight	Making Right Turn
Truxel Rd at Rt 80 Eboff/R (N)	0		2002	Broadside	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	N	W	Proceeding Straight	Making Right Turn
8th Ave at Stockton Blvd	0		2002	Head-On	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Driver	Bicyclist	N	E	Making Left Turn	Proceeding Straight
Cambridge St at Arden Way (N)	174	N	2002	Broadside	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Driver	Bicyclist	S	E	Proceeding Straight	Proceeding Straight
Power Inn Rd at Ramona Ave	60	S	2002	Head-On	Bicycle	Complaint of Pain	Other Hazardous Movement	1	0	Driver	Bicyclist	S	E	Traveling Wrong Way	Traveling Wrong Way
Stockton Blvd at 21st Ave	0		2002	Broadside	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	W	N	Proceeding Straight	Making Left Turn
J St at 57th St	0		2002	Broadside	Bicycle	Complaint of Pain	Other Hazardous Movement	1	0	Bicyclist	Driver	W	N	Proceeding Straight	Making Right Turn
Rio Linda Blvd at Lampasas Ave	0		2002	Sideswipe	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	W	N	Other	Proceeding Straight
Center Pkwy at Mack Rd	128	N	2002	Broadside	Bicycle	Other Visible Injury	Improper Turning	1	0	Driver	Bicyclist	N	N	Making Right Turn	Proceeding Straight

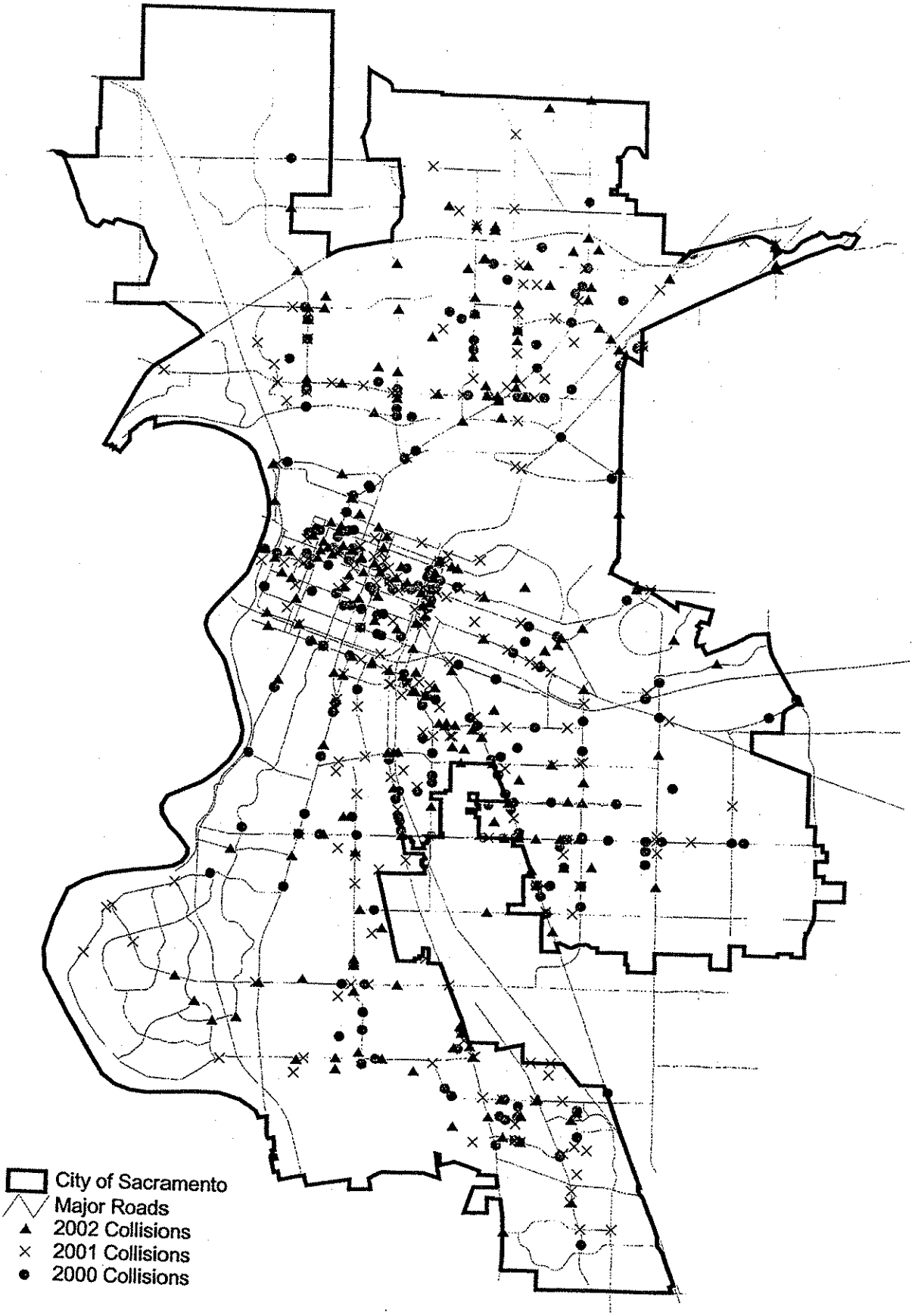
City of Sacramento Crossroads Collisions (2000-2002)

LOCATION	DIST	DIR	YEAR	COLLISION TYPE	INVOLVED	EXTENT	PRIMARY COLLISION FACTOR	# INJ	# KLD	PARTY 1	PARTY 2	DOT 1	DOT 2	MOVEMENT PROCEEDING COLLISION 1	MOVEMENT PROCEEDING COLLISION 2
J St at Carlson Dr	0		2002	Broadside	Bicycle	Other Visible Injury	Improper Turning	1	0	Driver	Bicyclist	S	E	Making Right Turn	Proceeding Straight
K St at 29th St	0		2002	Broadside	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	E	E	Proceeding Straight	Making Left Turn
Riverside Blvd at 4th Ave	9	S	2002	Broadside	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Driver	Bicyclist	W	S	Entering Traffic	Proceeding Straight
Truxel Rd at Saginaw Circle	0		2002	Broadside	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	S	W	Traveling Wrong Way	Making Right Turn
Jibboom St at Richards Blvd	7	S	2002	Veh - Ped	Pedestrian	Other Visible Injury	Traffic Signals and Signs	1	0	Bicyclist	Pedestrian	S	S	Proceeding Straight	Proceeding Straight
49th St at 50th St	454	S	2002	Broadside	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Bicyclist	Driver	E	S	Entering Traffic	Proceeding Straight
Ferran Ave at 18th St	0		2002	Broadside	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	S	E	Making Left Turn	Proceeding Straight
Mack Rd at Tangerine Ave	162	E	2002	Broadside	Bicycle	Other Visible Injury	Auto R/W Violation	2	0	Driver	Bicyclist	N	W	Making Right Turn	Traveling Wrong Way
Fruitridge Rd at Franklin Blvd	0		2002	Broadside	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Bicyclist	Driver	S	W	Traveling Wrong Way	Proceeding Straight
21st St at J St	8	S	2002	Other	Bicycle	Complaint of Pain	Traffic Signals and Signs	1	0	Bicyclist	Driver	E	N	Proceeding Straight	Proceeding Straight
Brookfield Dr at Franklin Blvd	1	E	2002	Broadside	Bicycle	Complaint of Pain	Traffic Signals and Signs	1	0	Bicyclist	Driver	S	W	Proceeding Straight	Proceeding Straight
Mc Kinley Blvd at 32nd St	18	W	2002	Sideswipe	Bicycle	Other Visible Injury	Improper Turning	1	0	Bicyclist	Driver	W	W	Proceeding Straight	Proceeding Straight
Northgate Blvd at Haggin Ave	137	S	2002	Broadside	Bicycle	Other Visible Injury	Driving Under Influence	1	0	Bicyclist	Driver	E	N	Proceeding Straight	Proceeding Straight
F St at 20th St	0		2002	Broadside	Bicycle	Other Visible Injury	Traffic Signals and Signs	1	0	Driver	Bicyclist	S	W	Proceeding Straight	Proceeding Straight
Occidental Dr at La Riviera Dr	12	S	2002	Broadside	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Driver	Bicyclist	W	W	Making Left Turn	Proceeding Straight
18th St at C St	0		2002	Broadside	Bicycle	Complaint of Pain	Traffic Signals and Signs	1	0	Driver	Bicyclist	S	E	Proceeding Straight	Making Left Turn
16th St at L St	168	S	2002	Sideswipe	Bicycle	Complaint of Pain	Improper Passing	1	0	Driver	Bicyclist	N	N	Proceeding Straight	Proceeding Straight
6th St at BRdway	11	N	2002	Broadside	Bicycle	Fatal	Auto R/W Violation	0	1	Driver	Bicyclist	E	W	Making Left Turn	Proceeding Straight
Florin Rd at 29th St	480	E	2002	Broadside	Bicycle	Property Damage Only	Wrong Side of Road	0	0	Driver	Bicyclist	E	W	Proceeding Straight	Making Right Turn
University Ave at Santa Maria Way	5	N	2002	Broadside	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	S	W	Proceeding Straight	Making Right Turn
2nd Ave at Freeport Blvd	0		2002	Broadside	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Driver	Bicyclist	S	E	Making Left Turn	Proceeding Straight
Ehrhardt Ave at Center Pkwy	105	W	2002	Broadside	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Bicyclist	Driver	N	W	Traveling Wrong Way	Proceeding Straight
34th Ave at 24th St	0		2002	Broadside	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	N	S	Proceeding Straight	Making Right Turn
2nd Ave at 21st St (S)	7	E	2002	Sideswipe	Bicycle	Property Damage Only	Wrong Side of Road	0	0	Bicyclist	Driver	S	W	Proceeding Straight	Making Right Turn
Northgate Blvd at Rio Tierra Ave	0		2002	Broadside	Bicycle	Complaint of Pain	Traffic Signals and Signs	1	0	Bicyclist	Driver	E	S	Proceeding Straight	Proceeding Straight
Franklin Blvd at 21st Ave	200	N	2002	Sideswipe	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	S	N	Proceeding Straight	Proceeding Straight
Dry Creek Rd at South Ave	0		2002	Broadside	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	E	S	Proceeding Straight	Making Right Turn
9th St at S St	0		2002	Broadside	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Driver	Bicyclist	W	E	Making Left Turn	Proceeding Straight
Freeport Blvd at Florin Rd	0		2002	Head-On	Bicycle	Other Visible Injury	Improper Turning	1	0	Driver	Bicyclist	N	W	Making Right Turn	Proceeding Straight
65th Expy at 18th Ave	48	N	2002	Rear-End	Bicycle	Complaint of Pain	Other Hazardous Movement	1	0	Driver	Bicyclist	N	N	Proceeding Straight	Merging
L St at 5th St	6	E	2002	Broadside	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	S	W	Proceeding Straight	Making Right Turn
3rd St at N St	69	N	2002	Broadside	Bicycle	Complaint of Pain	Wrong Side of Road	1	0	Bicyclist	Driver	N	W	Traveling Wrong Way	Entering Traffic
Valley Hi Dr at Newgate Dr	0		2002	Head-On	Bicycle	Other Visible Injury	Other Hazardous Movement	1	0	Bicyclist	Driver	E	E	Proceeding Straight	Proceeding Straight
Roseville Rd at Connie Dr	4224	N	2002	Rear-End	Bicycle	Severe Injury	Unsafe Speed	1	0	Driver	Bicyclist	S	S	Proceeding Straight	Proceeding Straight
30th St at G St	0		2002	Head-On	Bicycle	Complaint of Pain	Traffic Signals and Signs	1	0	Driver	Bicyclist	N	E	Proceeding Straight	Proceeding Straight
Alhambra Blvd at BRdway	0		2002	Broadside	Bicycle	Other Visible Injury	Driving Under Influence	1	0	Bicyclist	Driver	S	E	Proceeding Straight	Proceeding Straight
Valley Hi Dr at Halkeep Way	90	E	2002	Broadside	Bicycle	Property Damage Only	Auto R/W Violation	0	0	Driver	Bicyclist	S	E	Entering Traffic	Proceeding Straight
I St at 17th St	0		2002	Broadside	Bicycle	Complaint of Pain	Auto R/W Violation	1	0	Driver	Bicyclist	W	S	Proceeding Straight	Proceeding Straight
Jibboom St at I St Bridge	1408	N	2002	Other	Bicycle	Other Visible Injury	Other Hazardous Movement	1	0	Bicyclist		N		Proceeding Straight	
12th St at F St	0		2002	Broadside	Bicycle	Complaint of Pain	Other Hazardous Movement	1	0	Driver	Bicyclist	S	W	Proceeding Straight	Proceeding Straight
Detroit Blvd at Laurie Way	100	S	2002	Head-On	Bicycle	Other Visible Injury	Wrong Side of Road	1	0	Bicyclist	Driver	S	N	Proceeding Straight	Proceeding Straight
El Camino Ave at Fairfield St	57	W	2002	Rear-End	Bicycle	Other Visible Injury	Other Hazardous Movement	1	0	Bicyclist	Driver	E	E	Proceeding Straight	Proceeding Straight
Florin Rd at Long River Dr	0		2002	Broadside	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	W	N	Proceeding Straight	Making Left Turn
BRdway at 25th St	0		2002	Broadside	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	N	E	Proceeding Straight	Proceeding Straight
Watt Ave at Rt 99 50 80 Sbon/R	0		2002	Sideswipe	Bicycle	Other Visible Injury	Improper Turning	1	0	Driver	Bicyclist	N	S	Changing Lanes	Proceeding Straight
Rosin Blvd at End1	75	S	2002	Broadside	Bicycle	Other Visible Injury	Other Improper Driving	1	0	Driver	Bicyclist	S	E	Making Left Turn	Proceeding Straight
BRdway at San Jose Way	0		2002	Broadside	Bicycle	Other Visible Injury	Unknown	1	0	Driver	Bicyclist	N	E	Making Right Turn	Proceeding Straight
H St at 13th St	120	E	2002	Other	Bicycle	Complaint of Pain	Other Hazardous Movement	1	0	Driver	Bicyclist	E	E	Stopped In Road	Proceeding Straight
Fruitridge Rd at Nolder Way	0		2002	Sideswipe	Bicycle	Complaint of Pain	Unknown	1	0	Bicyclist	Driver	W	N	Proceeding Straight	Making Right Turn
Stockton Blvd at 14th Ave	0		2002	Broadside	Bicycle	Other Visible Injury	Unknown	1	0	Bicyclist	Driver	E	E	Proceeding Straight	Making Right Turn
BRdway at Franklin Blvd	0		2002	Broadside	Bicycle	Complaint of Pain	Traffic Signals and Signs	1	0	Driver	Bicyclist	N	N	Making Left Turn	Proceeding Straight
Raley Blvd at Rt 80 Eboff/R	228	N	2002	Broadside	Bicycle	Other Visible Injury	Auto R/W Violation	1	0	Bicyclist	Driver	E	N	Stopped In Road	Proceeding Straight

SOURCE: City of Sacramento, Traffic Engineering Crossroads Collision Database.

Abbreviations

DIST = Distance from Intersection
DIR = Direction from Intersection
INJ = Injured
KLD = Killed
DOT = Direction of Travel
Pkd Mtr Veh = Parked Motor Vehicle
Oth Mtr Veh = Other Motor Vehicle
X to Opp Ln-Unpind = Crossed into Opposing Lane-Unplanned



Locations of Collisions Involving Bicycles within the City of Sacramento, 2000-2002