

2008 Bicycle Master Plan

Initial Study / Mitigated Negative Declaration



Mark Morse
Environmental Coordinator
311 Vernon Street
Roseville, CA 95678
(916) 774-5334
(916) 774-5195 Fax



Mitigated Negative Declaration/Initial Study for the 2008 Bicycle Master Plan

March 2008

Prepared for

City of Roseville
Public Works Department
Alternative Transportation Division

City of Roseville Contact Information:

City of Roseville
Attn: Mark Morse, Environmental Coordinator
311 Vernon Street
Roseville, CA 95678
(916) 774-5334
(916) 774-5195 fax

Prepared by

Foothills Associates
655 Menlo Drive, Suite 100
Rocklin, CA 95765-3718
Project Manager, Joe Looney
(916) 435-1202

**NOTICE OF INTENT
TO ADOPT A MITIGATED NEGATIVE DECLARATION**

TO: Interested Parties
FROM: City of Roseville Community Development Department
DATE: April 4, 2008

REGARDING: A Mitigated Negative Declaration for the proposed Bicycle Master Plan Update is available for public review beginning April 12, 2008.

Public Notice is hereby given that a Mitigated Negative Declaration (environmental report) is available for public review for the:

City of Roseville Bicycle Master Plan Update

Project Description: The City of Roseville Bicycle Master Plan is a planning document intended to guide and influence bikeway policies, programs and development standards to make bicycling in Roseville more safe, comfortable, convenient and enjoyable for all bicyclists. The Bicycle Master Plan recommends physical improvements, including on-street bike lanes and bike routes, off-street bike paths, and appurtenances such as signs, bike racks and lockers, parking lots, restrooms, water fountains and lighting.

Document Review and Availability: The public comment period will extend for 30 days from **April 12, 2008 to May 12, 2008**. The Mitigated Negative Declaration is available for public review at the following locations:

- Roseville City Clerk's Office, 311 Vernon Street, Roseville, CA 95747 (8:00 A.M. to 5:00 P.M., Monday through Friday).
- Roseville Community Development Department, 311 Vernon Street, Roseville, CA 95678 (8:00 A.M. to 5:00 P.M., Monday through Friday)
- Roseville Main Library (225 Taylor Street), Maidu Branch Library (1530 Maidu Drive), and Martha Riley Community Library (1501 Pleasant Grove Boulevard) during normal operating hours

Public Meeting: The City of Roseville will hold the following meetings to consider the Bicycle Master Plan and the Initial Study/Mitigated Negative Declaration:

- A public meeting before the Roseville Transportation Commission to be held on April 15, 2008.
- A public meeting before the Roseville Parks and Recreation Commission to be held on May 5, 2008.
- A public hearing before the Roseville Planning Commission to be held on May 8, 2008. This hearing will include a recommended action on the accompanying General Plan Amendment.

The Mitigated Negative Declaration is tentatively scheduled for consideration and possible adoption by the City Council on June 4, 2008. All of the listed meetings start at 7:00 p.m. in the Roseville Council Chambers, 311 Vernon Street. Interested parties should call the Roseville City Clerk's Office to confirm the meeting agendas, times, and dates (774-5263).

Contact: Comments and/or questions may be directed to: Mark Morse, Roseville Community Development Department, 311 Vernon Street, Roseville, CA 95678 (774-5334).

MITIGATED NEGATIVE DECLARATION

Project Title/File Number:	City of Roseville Bicycle Master Plan Update
Project Location:	Roseville; Placer County
Date:	April 2, 2008
Project Description:	The City of Roseville Bicycle Master Plan is intended to guide and influence bikeway policies, programs and development standards to make bicycling in Roseville more safe, comfortable, convenient and enjoyable for all bicyclists. The Bicycle Master Plan recommends physical improvements, including on-street bike lanes and bike routes, off-street bike paths, and appurtenances such as signs, bike racks and lockers, parking lots, restrooms, water fountains and lighting.
Project Applicant:	Michael Dour, City of Roseville, Public Works Department, 401 Vernon Street, Roseville, CA (916) 746-1304
Property Owner:	City of Roseville, 311 Vernon Street, Roseville, CA (916) 746-1304
Lead Agency Contact Person:	Mark Morse, Phone (916) 774-5334

DECLARATION: The City of Roseville Environmental Coordinator has determined that the above project will have no significant effect on the environment and is therefore exempt from the requirement of an Environmental Impact Report (EIR). The determination is based on the attached initial study and the following findings:

- A. *The project will not have the potential to degrade the quality of the environment, substantially reduce the habitat of 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 community, reduce the number or restrict the range of rare or endangered plants or animals or eliminate important examples of the major periods of California history or prehistory.*
- B. *The project will not have the potential to achieve short-term, to the disadvantage of long-term, environmental goals.*
- C. *The project will not have impacts which are individually limited, but cumulatively considerable.*
- D. *The project will not have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly.*
- E. *No substantial evidence exists that the project will have a negative or adverse effect on the environment.*
- F. *The project incorporates all applicable mitigation measures identified in the attached initial study.*
- G. *This mitigated negative declaration reflects the independent judgment of the lead agency.*
- H. *The City's uniformly applied development policies or standards as identified in the City's adopted CEQA Procedures will substantially mitigate the environmental effects of the project.*

Written comments shall be submitted no later than 30 days from the posting date. City Council determination on this Mitigated Negative Declaration is final.

Posting Period: April 12, 2008 through May 12,
2008

Initial Study reviewed
and approved by:



Mark Morse
Environmental Coordinator

Placer County Clerk: Please mail the original of this document back to City Clerk, 311 Vernon Street, Roseville, CA 95678.

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Section 1 Introduction

Project Overview

The City of Roseville Bicycle Master Plan is intended to guide and influence bikeway policies, programs and development standards to make bicycling in Roseville more safe, comfortable, convenient and enjoyable for all bicyclists. The Bicycle Master Plan recommends physical improvements, including on-street bike lanes and bike routes, off-street bike paths, and appurtenances such as signs, bike racks and lockers, parking lots, restrooms, water fountains and lighting.

The Bicycle Master Plan was first adopted in 1994 pursuant to the Roseville General Plan and in accordance with the State of California Bicycle Transportation Act. The Bicycle Transportation Act requires that local agencies complete a Bicycle Master Plan in order to qualify for grant funds issued by the California Department of Transportation through the Bicycle Transportation Account. The Bicycle Transportation Act further requires that Bicycle Master Plans be updated every 4 years. The Roseville BMP has been updated twice since 1994, most recently in 2002.

Initial Study Purpose

This document has been prepared to satisfy requirements of the California Environmental Quality Act (CEQA) and State CEQA Guidelines.¹ CEQA requires the City of Roseville, as a Lead Agency for the Bicycle Master Plan Update, to evaluate the plan's potential effects on the environment. The Initial Study is the method prescribed in the CEQA Guidelines for determining whether or not the environmental effects of the Bicycle Master Plan Update are potentially significant. If the City of Roseville, as lead agency, finds substantial evidence that the Bicycle Master Plan Update may cause a significant effect on the environment, an Environmental Impact Report (EIR) must be prepared. If the City of Roseville finds no substantial evidence that the Bicycle Master Plan Update may cause a significant effect on the environment, then a Negative Declaration may be filed.

The Initial Study evaluates the potential environmental impacts associated with implementation of the goals, policies and implementation measures of the BMP Update and the construction, use and maintenance of the bikeway facilities identified in the plan. This Initial Study has been prepared at a program level to enable broad consideration of the BMP Update's environmental impacts and reduce repetitive analysis of issues that may be relevant to multiple projects. Program-level consideration of the BMP Update provides the City with an opportunity to propose citywide, programmatic mitigation that might not be possible with individual project-level analyses. On the basis of this Initial Study, the City of Roseville has determined that the potential environmental impacts resulting from adoption of the Bicycle Master Plan Update are less than significant with the recommended mitigation measures, and a **Mitigated Negative Declaration** has been prepared.

¹ The California Environmental Quality Act can be found in Public Resources Code, Section 21000 and the CEQA Guidelines in the California Code of Regulations Section 15000.

Methodology

This initial study provides a program level review of the Bicycle Master Plan. The initial study does not include site-specific impact analysis of the BMP Update's planned bikeway projects. For example, there are no site specific biological surveys or cultural resources surveys. After adoption of the BMP Update, subsequent program activities and bikeway projects will be subject to further site-specific environmental review as required by CEQA and as further discussed below.

Use of Previous Environmental Documents

Many of the bikeway projects proposed by the Bicycle Master Plan Update have been evaluated in previous environmental documents. Where the prior environmental document is a site-specific project-level environmental impact analyses, no further environmental review will be required for the project. The following list identifies projects for which site-specific project-level environmental documents have been adopted/certified and for which no further environmental impact analyses will be required:

- Harding Boulevard to Royer Park Bikeway Project EIR
- Harding Boulevard to Royer Park – Subsequent Initial Study/Mitigated Negative Declaration for Alternative 6 Bridge
- Initial Study/Mitigated Negative Declaration for Antelope Creek Bicycle and Pedestrian Trail Project
- Initial Study/Mitigated Negative Declaration for Foothills Tennis Village Bike Path
- Initial Study/Mitigated Negative Declaration for Saugstad Park to Riverside Gateway Bike Path and Pedestrian Improvements

In other instances, bikeway projects proposed by the Bicycle Master Plan Update have been evaluated in specific plan EIRs. For example, the environmental impacts resulting from construction of Class I trails and Class II bike lanes within the West Roseville Specific Plan (WRSP) were evaluated in the WRSP EIR. The Specific Plan EIRs are intended to examine the project-level effects of implementing the specific plans, including the bikeway projects contemplated therein. The following list identifies the prior certified Specific Plan EIRs that include bikeway projects proposed by the Bicycle Master Plan Update:

- West Roseville Specific Plan EIR
- North Roseville Specific Plan EIR
- Stoneridge Specific Plan EIR
- Northwest Roseville Specific Plan EIR
- North Central Roseville Specific Plan EIR
- Riverside Gateway Specific Plan EIR
- Foothills Business Park EIR

CEQA Section 21083.3 and CEQA Guidelines Section 15183 discuss the requirements for subsequent environmental review for projects that are included within a General Plan or Community Plan for which an EIR has been certified. The CEQA Statute and Guidelines state if a project is consistent with a Community Plan, General Plan or Zoning action for which an EIR was certified, no further environmental impact review is required except as might be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site. The intent is to streamline the review of projects and reduce the need to prepare repetitive environmental studies. In particular, CEQA Guidelines Section 15183(b) states:

In approving a project meeting the requirements of this section, a public agency shall limit its examination of environmental effects to those which the agency determines, in an initial study or other analysis:

- (1) Are peculiar to the project or the parcel on which the project would be located, and*
- (2) Were not analyzed as significant effects in a prior EIR on the zoning action, general plan, or community plan, with which the project is consistent,*
- (3) Are potentially significant off-site impacts and cumulative impacts which were not discussed in the prior EIR prepared for the general plan, community plan or zoning action, or*
- (4) Are previously identified significant effects which, as a result of substantial new information which was not known at the time the EIR was certified, are determined to have a more severe adverse impact than discussed in the prior EIR.*

The City intends to utilize CEQA Guidelines Section 15183 when determining the level of environmental review required for bikeway projects within a Specific Plan for which an EIR has been certified. In those instances, the City will prepare a subsequent analysis for site-specific projects to determine if any peculiar features of the project or site necessitate further environmental review. If so, then either an EIR or Subsequent Initial Study/Negative Declaration will be prepared. If not, then no further environmental review will be required.

Mitigating Policies and Standards

The California Environmental Quality Act (CEQA) allow the use of uniformly applied, previously adopted development policies or standards as mitigation for the environmental effects of future projects. Applying uniform policies and standards as mitigation is permitted when the standards have been adopted by the City, with findings based on substantial evidence that the policies or standards will substantially mitigate environmental effects (CEQA Guidelines §15183(f)).

Pursuant to CEQA Guidelines §15183(f), in March 2003 the City of Roseville City Council adopted Resolution 03-169, which adopted findings of fact confirming that certain environmental impacts are mitigated by the uniform application of the policies and standards listed below:

- Noise Regulation (RMC Ch.9.24)
- Flood Damage Prevention Ordinance (RMC Ch.9.80)
- Traffic Mitigation Fee (RMC Ch.4.44)
- Drainage Fees (Dry Creek [RMC Ch.4.49] and Pleasant Grove Creek [RMC Ch.4.48])
- Design & Construction Standards (Resolutions 01-208 & 02-37, as amended)
- Tree Preservation Ordinance (RMC Ch.19.66)
- Subdivision Ordinance (RMC Ch.18)
- Community Design Guidelines (Resolution 95-347)
- Specific Plan Design Guidelines
 - Development Guidelines Del Webb Specific Plan (Resolution 96-330)
 - Landscape Design Guidelines for North Central Roseville Specific Plan (Resolution 90-170)
 - North Roseville Specific Plan and Design Guidelines (Resolution 00-432)
 - Northeast Roseville Specific Plan (Olympus Pointe) Signage Guidelines (Resolution 89-42)
 - North Roseville Area Design Guidelines (Resolution 92-226)
 - Northeast Roseville Specific Plan Landscape Design Guidelines (Resolution 87-31)
 - Southeast Roseville Specific Plan Landscape Design Guidelines (Resolution 88-51)
 - Stoneridge Specific Plan and Design Guidelines (Resolution 98-53)
 - West Roseville Specific Plan (Resolution #04-38)

Section C of Resolution 03-169 lists the potential impacts for which the above policies and standards may effectively mitigate the impact to a less than significant level. Where applicable, this Initial Study references the mitigating policies and standards as mitigation for the potential impacts of the Bicycle Master Plan Update. Because the City of Roseville has adopted CEQA Findings that these Mitigating Policies and Standards mitigate certain environmental impacts to a less than significant level, there may be instances where no additional project-specific mitigation is required for the specified impact areas.

Regulatory Authority/Permits Required

The Bicycle Master Plan Update includes bikeway projects that may require permits from other agencies. The future bikeway projects will be developed in accordance with applicable local, state and federal standards for bikeway development, and in accordance with applicable mitigation measures adopted by prior environmental documents. The applicable development standards and mitigation measures include required permits. The permit requirements and approvals and the responsible agencies are shown in Table 1-1. Each future project may be required to obtain some or all of the listed approvals depending on the type of project, its impacts, and the funding source.

Table 1-1 Responsible Agencies, and Required Permits and Approvals		
Regulatory Agency	Type of Permit or Approval	Reason for Permit or Approval
City of Roseville	City Council	Project and CEQA Approval City Council is the designated approval authority.
	Public Works Department	Improvement Plans, Grading Permit and Encroachment Permit Comply with City Design & Construction Standards.
State of California	Department of Fish and Game	Streambed Alteration Agreement per Section 1600-1603 of California Fish and Game Code The BMP Update includes projects that are located within stream corridors.
	Department of Transportation	Encroachment Permit The BMP Update includes projects that cross state highway right-of-way
	Regional Water Quality Control Board – Central Valley	a) Water Quality Certification per Clean Water Act Section 401 a) The BMP includes projects that may impact waters of the United States

Table 1-1 Responsible Agencies, and Required Permits and Approvals			
Regulatory Agency	Type of Permit or Approval	Reason for Permit or Approval	
	b) Storm Water Pollution Prevention Plan (SWPPP)	b) The BMP includes projects that will affect 1 or more acres	
United States of America	U.S. Army Corps of Engineers	Nationwide or Individual Permit per Clean Water Act Section 404	The BMP Update includes projects that may impact waters of the United States
	U.S. Fish and Wildlife Service	Consultation per the Endangered Species Act	The BMP Update includes projects that may impact listed plant or animal species
	National Marine Fisheries Service	Consultation per the Endangered Species Act	The BMP Update includes projects that may impact listed anadromous species

Public Participation

The public participation component of the Bicycle Master Plan Update included Steering Committee meetings, a bicycle tour and impression survey, a website based public survey, and two public workshops. This Initial Study/Mitigated Negative Declaration will be distributed for 30 days for public review and comment. The Planning Commission and Transportation Commission will hold public meetings at which individuals may provide written or oral comments about the Bicycle Master Plan Update and Initial Study/Mitigated Negative Declaration. The City Council will then consider adoption of the Bicycle Master Plan Update and Initial Study/Mitigated Negative Declaration at a regularly scheduled public meeting.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

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

DETERMINATION

On the basis of this initial evaluation:

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

Derek Ogden
Signature

DEREK OGDEN
Printed Name

3/19/08
Date

MARK MORSE
For
(ENVIRONMENTAL COORDINATOR)

Section 2

Project Description

Background

The City of Roseville Bicycle Master Plan was adopted in 1994 pursuant to the Roseville General Plan and the State of California Bicycle Transportation Act. The BMP has been updated twice, in 1998 and 2002.

The 2008 Bicycle Master Plan Update is a comprehensive update of the plan. This section provides a description of the update, including a summary of the proposed bikeway facilities and proposed goals, policies and implementation measures. The project description outlines the elements of the BMP Update that are analyzed for potential adverse physical environmental impacts in Section 3.

Regional Setting

The City of Roseville is located at the southern boundary of Placer County, approximately 16 miles northeast of the City of Sacramento, as shown in Figure 2-1. Neighboring jurisdictions include the City of Citrus Heights, City of Rocklin, Sacramento County and unincorporated portions of Placer County.

Roseville is a rapidly growing City with a population of approximately 106,000 persons that is developed with a mix of mature and new neighborhoods, businesses and employment centers. The City of Roseville also includes over 1,300 acres of public open space, which are largely concentrated along Dry Creek, Pleasant Grove Creek, and their tributaries. Topography in Roseville is primarily level terrain, with some rolling hills in north and east Roseville.

There are several types of plant communities that occur in Roseville. Riparian woodlands form a narrow band along creekbanks. Scattered oaks extend from these creeks to the gullies and ephemeral channels of creek watersheds. Deeper valley soils are vegetated with annual grasslands and remnant patches of valley oak woodland. Some poorly-drained, low-lying areas in relatively undisturbed grasslands contain vernal pools and marshes. Blue oak savanna is present in the foothills of the Sierra Nevada.

Over the past 20 years, the City of Roseville has used the specific plan process to guide development. Specific plans establish for a specified "Plan Area" a development framework for land use, affordable housing, resource protection, circulation, utilities and services. All specific plans include a description and map of proposed bikeways. The specific plan process allows the City to promote the systematic and orderly development of large geographic areas and to comprehensively evaluate the potential environmental impacts of the Specific Plan in an EIR. The City currently has ten specific plan areas:

- Southeast Roseville Specific Plan

- Northwest Roseville Specific Plan
- Northeast Roseville Specific Plan
- North Central Roseville Specific Plan
- Del Webb Specific Plan
- North Roseville Specific Plan
- Highland Reserve North Specific Plan
- Stoneridge Specific Plan
- West Roseville Specific Plan
- Riverside Gateway Specific Plan

In association with specific plans, the City uses development agreements as a tool to document the requirements for development of a specific plan area. When a specific plan includes bikeways, the accompanying development agreement typically identifies the responsibilities of the City and developer as it relates to bikeway development. The development agreement will typically identify provisions for the financing and/or construction of bike trails and the dedication of right-of-way for bikeways.

Project Objectives

The Bicycle Master Plan Update is intended to provide guidance for bikeway policy, programs and development. The ultimate goals of the plan, as described in the proposed Amendment to the General Plan Circulation Element are:

1. Increase the percentage of all trips made by bicyclists in Roseville.
2. Establish and maintain a safe, comprehensive and integrated bikeway and trail system that encourages the use of bikes and walking for commuting, recreation and other trips.
3. Establish education, encouragement and enforcement programs that increase bicyclist and motorist awareness of the rights and responsibilities of bicyclists in order to create a climate of acceptance for bike riding.
4. Obtain the Bicycle Friendly Community Designation from the League of American Bicyclists.

The Bicycle Master Plan Update further identifies a detailed list of goals, policies and implementation measures for each of nine bikeway program focus areas. These goals, policies and implementation measures were developed through a combination of Steering Committee meetings, public workshops, and a public survey to determine the needs of cyclists. The goals, policies and implementation measures to a degree differ from prior versions of the Bicycle Master Plan. Please see Section III of the BMP Update for a complete list of the goals, policies and implementation measures for the other focus areas, which include:

- Bikeway Route Development
- Bikeway Support Facilities
- Maintenance
- Education
- Enforcement

- Encouragement
- Environment
- Funding
- Evaluation

Bikeway Types

Class I Off-Street Bike Paths – Class I paths are located in a separate right of way, for the exclusive use of bicycles and pedestrians, with minimal cross flow by motor vehicles. In Roseville, off-street bike paths are typically paved 10’ wide with 2’ graded shoulder on each side, for a total width of 14 feet. Class I trails in Roseville are usually located within open space corridors along creeks, high voltage power line corridors and community/city-wide parks. They may also be located within paseos or greenways, which are landscape areas created for the purpose of providing important bicycle and pedestrian linkages between uses.

Class II On-Street Bike Lanes – Class II bike lanes are areas within paved streets that are identified by striping and signs for preferential (semi-exclusive) bicycle use. Vehicle cross flow is generally permitted at intersections and driveways. In Roseville, bike lanes are typically 4 feet wide.

Class III On-Street Bike Route - Class III Bikeways are on-street routes where bikes share the road with cars. Class III routes are intended to provide continuity to the bikeway system and are usually established along through routes not served by Class I or II bike routes, or as an alternative to bicycling on busy streets. Bike routes are designated by signs or permanent markings and are shared by motorists.

Project Description

Section IV of the BMP Update describes a network of existing and proposed Class I, II and III bikeways (see definition of bikeway types, below) that are intended to serve the Roseville community. The proposed bikeways are capital improvements that will be built in segments over a 20-year time frame. The existing and proposed bikeway network is shown in Figure 2-2, while Figure 2-3 highlights only proposed bike facilities, breaking the network down into logical segments for construction.

For Class I trails, the plan includes two proposed grade-separated crossings (over or under crossings) of Highway 65, two proposed grade-separated crossings of Interstate 80 and five proposed grade-separated crossings of the Union Pacific Railroad Yard and rail lines. Additional controlled and/or grade-separated crossings of other local streets may be provided. The type of crossing to be used in each location will be subject to further analysis conducted as each project is implemented.

Class II bike lanes will typically be constructed as part of new roadway construction or roadway widening projects. However, there may be several stand-alone projects for Class II bike lanes. New bike lanes are not intended to replace existing or planned vehicle lanes. Class III bike routes may involve signs and/or striping of roadways, but will not otherwise affect the designated roads. Right-of-way acquisition may be necessary for both Class I paths and II bike lanes.

The total miles of existing and proposed bikeways are shown in Table 2-1:

Bikeway Classification	Existing	Proposed	Total
Class I	27	28	55
Class II	83	27	110
Class III	9	33	42
Total	119	88	207

Future bikeway improvement projects may involve a single segment or multiple logically-connected segments bundled into a single project. The BMP identifies short term, medium term and long term projects. The actual number of bikeway miles to be constructed in a given year is unknown and highly variable. Construction phasing will be dependent upon need, suitability, and readiness.

As discussed in the BMP Update, bikeway support facilities include lighting, signs, bike parking, and trailhead parking lots. Bikeway support facilities may be installed in conjunction with a bikeway project, or as a separate improvement project. Once a bikeway is constructed, it would be operated and maintained in the same way as other pavement and park assets in the City.

As noted previously, this Initial Study is intended as a program-level analysis of the bikeway program and facilities. Specific improvement plans and details are not available at this time and would be part of project level evaluation when bikeway projects are scheduled for implementation. Many of the bikeway projects proposed by the BMP Update were identified through the Specific Plan process and have been evaluated in prior environmental documents.

Funding

The BMP estimates that the cost of fully implementing the proposed bikeway system over the next 20 years will be \$51 million. Planning and development processes would be timed to take advantage of funding as it becomes available and to leverage the availability of grant funds. Detailed information regarding sources of federal, state and local funding is provided Section IV of the BMP Update. Funding will generally be directed to higher priority projects as identified in the BMP Update, but will occasionally be directed otherwise based upon project readiness and criteria of a particular funding source.



FIGURE 2-1: Vicinity Map

Source: GoogleMaps

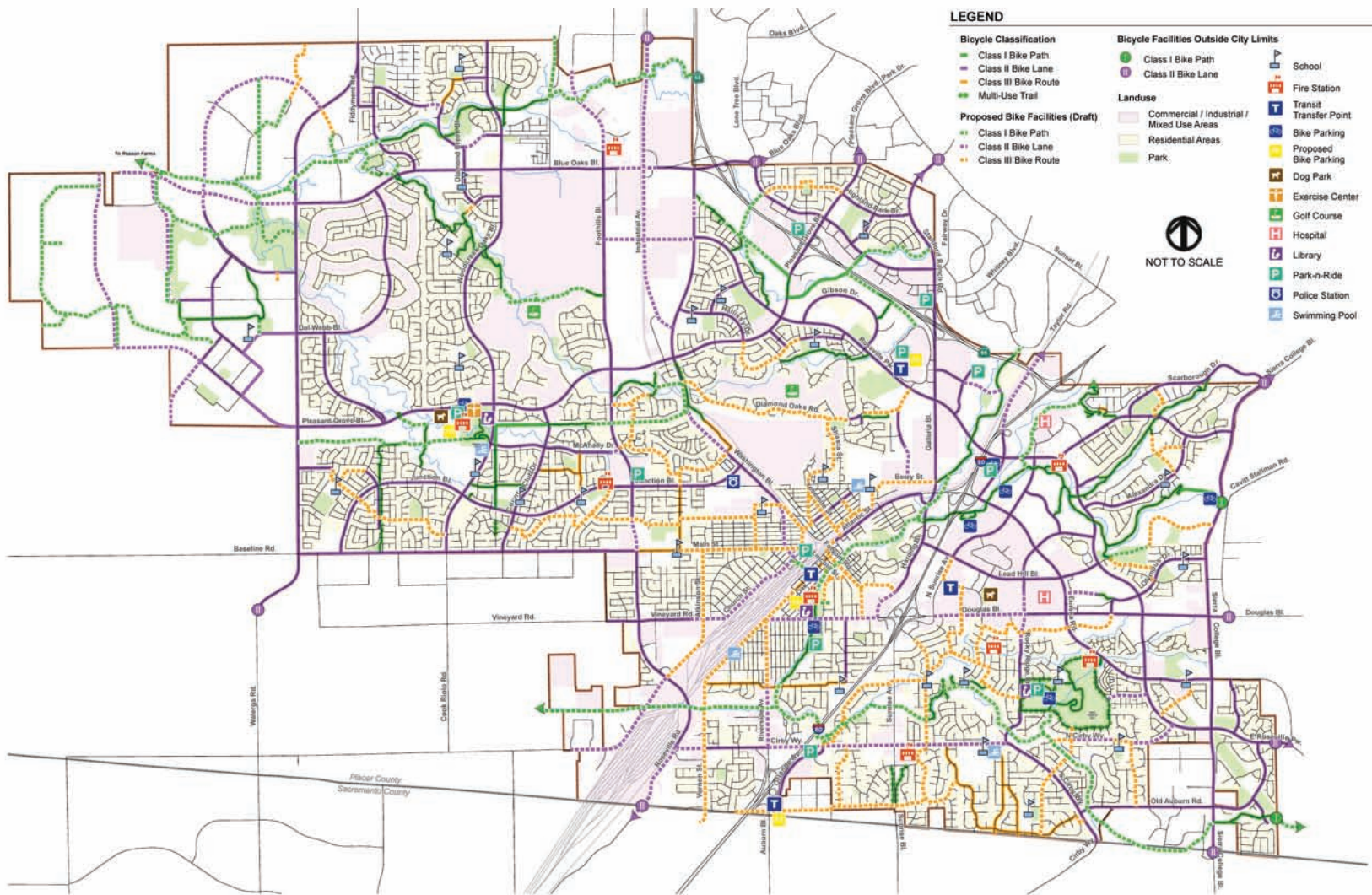


Figure 2-2

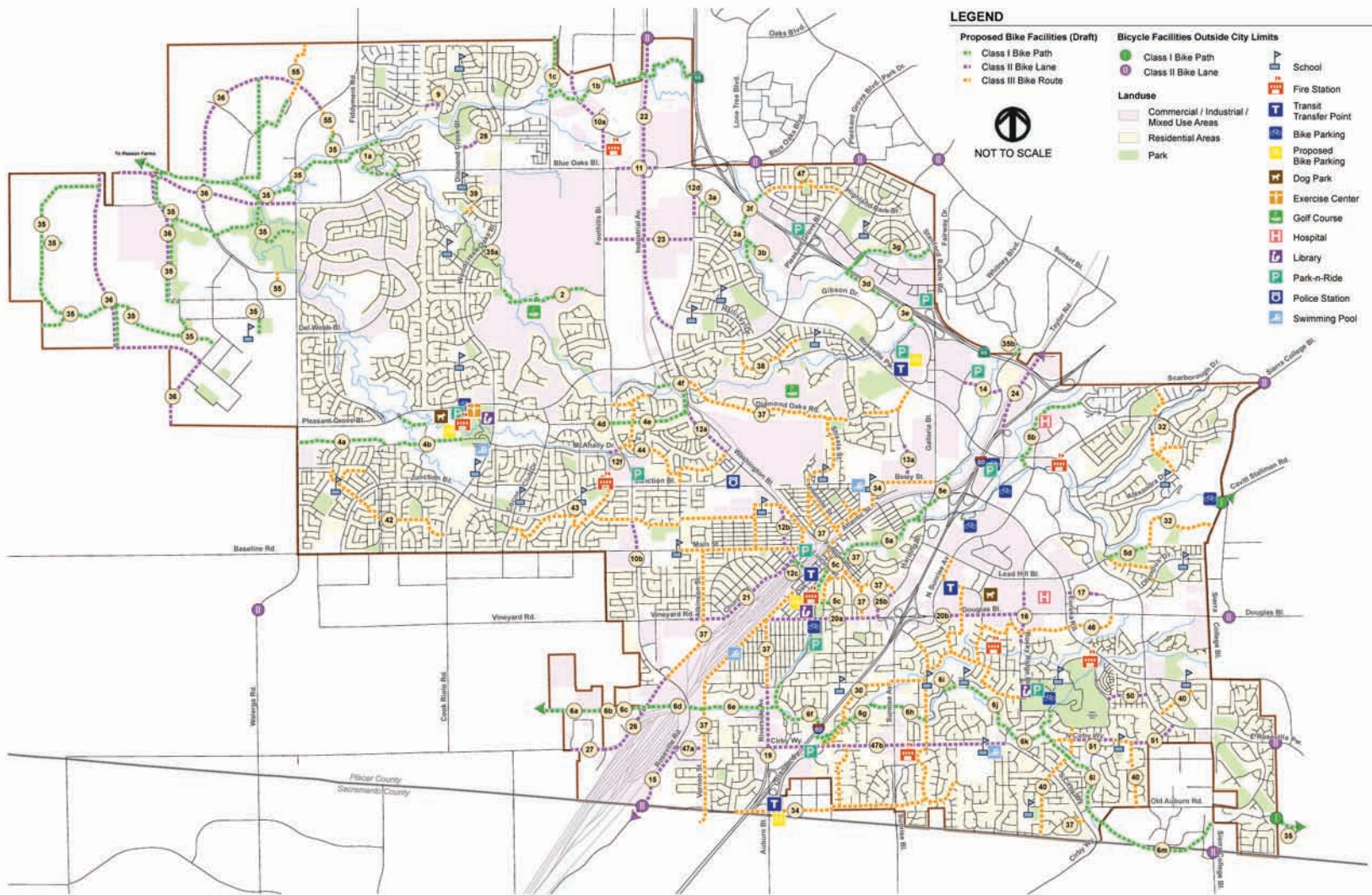


Figure 2-3

Section 3 Environmental Analyses

Environmental Checklist

The CEQA Guidelines prescribe the process required in the analysis of potential environmental impacts. The tabular environmental checklist form, contained in Appendix "G" of the Guidelines, has been incorporated into this section of the Initial Study. The checklist and accompanying narrative describe the Project's major features, briefly explains areas in which the Project will have no major impact or will have impacts that are considered less than significant, and identifies impacts which are significant but mitigated to a level below significance through the incorporation of identified mitigation measures.

In some instances, mitigation measures are recommended to further reduce potential environmental effects, which based on preliminary analysis are already less than significant. Mitigation measures from previously adopted/certified environmental documents for the Project area are incorporated where they are relevant for potentially significant Project impacts. If previous documents do not fully mitigate potentially significant impacts, new mitigation measures are identified.

For the Project, all impacts were either less than significant or less than significant with the incorporation of mitigation measures. The mitigation monitoring plan is included as Appendix D.

Environmental Impact Evaluation Criteria

The following section contains an adaptation of the environmental checklist form presented in CEQA Guidelines Appendix G. The checklist form is used to describe the impacts of the Proposed Project. A discussion follows each environmental issue identified in the checklist. Included in each discussion are Project-specific mitigation measures recommended as appropriate as part of the Proposed Project. For this checklist, the following designations are used:

Potentially Significant Impact: An impact that could be significant, and for which no mitigation has been identified. If any potentially significant impacts are identified, an EIR must be prepared.

Less than Significant With Mitigation Incorporated: An impact that requires mitigation to reduce the impact to a less-than-significant level. This box is checked if the initial study analysis identifies a new impact and related mitigation measure that was not disclosed or discussed in the prior environmental documents.

Less-Than-Significant Impact: Any impact that would not be considered significant under CEQA relative to existing standards.

No Impact: The project would not have any impact.

Aesthetics

Would the project:

Environmental Issue	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?				X
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			X	
c) Substantially degrade the existing visual character or quality of the site and its surroundings?		X		
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?			X	

Environmental Setting

The Roseville area is a transitional zone between the flat, open terrain of the Central Valley and the foothills of the Sierra Nevada. In some areas of Roseville, there are long-range views of the Sierra Nevada, Sutter Buttes, Mount Diablo, and the Coast Range.

The region consists of rolling topography with gentle slopes. Open grassland, which covers most undeveloped areas in the region, is not considered a dramatic visual element, but it forms a backdrop and context for the other vegetation. Oak woodlands and scattered riparian vegetation adjacent to drainages accentuate the ridgeline drainage patterns found in the landscape and contrast strongly with the surrounding grassland. Dry Creek, Pleasant Grove Creek and their tributaries support oak woodlands and riparian habitat. The form and character of scattered oaks and riparian habitat along creek corridors are valued elements of the visual environment. Vernal pools include flower production and color contrast to surrounding grassland during the wet winter and early spring months. The aesthetic value of vernal pools is a factor in the regional identity.

Development has become a prominent component of the landscape character in Roseville and reflects a variety of residential, commercial, and industrial land uses. In some areas, development has completely replaced the historically rural character associated with regional ranching and agricultural operations. In many other locations, development has segmented natural areas, thereby increasing the aesthetic value of the remaining contiguous open spaces.

Regulatory Setting

Federal and State - No federal or state regulations apply to aesthetics in the context of the BMP Update.

Local - The Roseville General Plan does not identify any scenic roadways or corridors requiring special consideration. Further, the General Plan has no policies or elements that specifically address protection of aesthetic or visual resources. Promotion of the preservation of “visual environments” is the most direct statement of visual resource protection in the general plan and is found in the “Community Design”

section of the Land Use Element. The General Plan promotes high-quality design, distinctive development or community character, public artistic expression and incorporation or preservation of natural features.

Pursuant to the General Plan, the City has adopted Community Design Guidelines that set development standards for site design, architecture, lighting, signs and artwork. Roseville's specific plans also specify design guidelines that may be more restrictive and detailed than the City's overarching Community Design Guidelines. The Community Design Guidelines provide guidance for the placement of bike racks at commercial sites and lighting, since although trails are typically not lighted there may be cases where lights are provided. The specific plans may provide guidance for the design and placement of bikeways.

Chapter 19.66 of the zoning ordinance (the Tree Preservation Ordinance) establishes requirements for the preservation of native oak trees. The natural scenic beauty of oak trees is cited as one of the reasons for the ordinance. The ordinance regulates activities that may affect native oak trees in an effort to preserve native oaks. The ordinance recommends avoiding impacts and removal of native oaks where feasible. In those instances where native oaks are impacted or removed, the ordinance further provides standards for mitigating the impact. City projects, including bikeway projects, are not required to obtain a Tree Permit but are otherwise required to implement the ordinance.

Impact Analysis

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

There are no designated scenic vistas within the City of Roseville. Due to their topography, the NERSP and SRSP include viewshed analyses that identify long range view corridors. The proposed bikeways will not affect the identified view corridors. As a result, there is **no impact**.

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

There are no designated scenic highways within the City of Roseville. The proposed bikeway projects are not expected to damage any existing historic buildings. The General Plan and General Plan EIR have not identified any scenic rock outcroppings within the City of Roseville, and most proposed bike paths are located in areas with relatively level terrain that does not include significant rock outcroppings. Since Class I bikeway projects would be constructed through open space, including the varied terrain at the east edge of the City, there is a potential for discovering rock outcroppings. However, Class I bike path projects would typically be routed around any rock outcroppings to adhere to standards for horizontal slopes of bike trails and to reduce construction costs. As a result, the impact is **less than significant**.

Class I and II bikeway projects may result in damage to or the removal of existing native oak trees. In those instances, the City will implement the Tree Preservation Ordinance (RMC Ch.19.66), which identifies guidelines for the evaluation of impacts to native oak trees. The Tree Preservation Ordinance requires that the City consider alternatives to reduce or avoid tree impacts, establishes standards for construction activities that occur within the protected zone of native oaks in order to minimize the affect upon impacted trees, and establishes standards for the replacement of removed trees. Class I and II bikeway projects may also result in the removal of street trees. If a bikeway project results in removal of street trees, the City will replace the trees to the extent feasible in accordance with the Community Design Guidelines and any applicable Specific Plan Guidelines. The City's adopted Findings for Mitigating Policies and Standards include a determination that the Tree Preservation Ordinance, Community Design Guidelines and Specific Plan Guidelines would mitigate this potential impact to a **less than significant** level.

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

Implementation of Class II bike lanes and Class III bike routes involves the installation of signs and/or

pavement markings on existing or new streets. For several Class II projects, it may also involve nominal street widening. Street improvement projects will be conducted in accordance with the standards of the Community Design Guidelines and applicable specific plan. When considered in context with the entirety of the roadway and compliance with these The City's adopted Findings for Mitigating Policies and Standards include a determination that the Community Design Guidelines and Specific Plan Guidelines would mitigate this potential impact to a **less than significant** level.

Class I trails include paving, signs and may include bridges, undercrossings, tunnels or other structures. The trails will traverse open space and parks, and may also be located in proximity to residences and businesses. This would introduce pavement and recreational users into a previously natural aesthetic environment and has the potential to change the character of the private viewsheds enjoyed by homeowners, residents and businesses. However, the City General Plan notes that increasing public access into natural open space areas is a goal that benefits Roseville residents as a whole. As a result, this impact is considered **less than significant**.

As noted in the environmental setting, Roseville's open space areas include vernal pools, waterways and their associated riparian habitat. These features have been identified by the City General Plan as important visual features. The General Plan land use element states that trails are a primary use of open space that should be compatible with the preservation and protection of open space as habitat and a visual amenity. Bike paths are located in consideration of a number of constraints. These include but are not limited to: Setbacks/avoidance from native oaks, riparian areas, wetlands, and special-status species; topography; setbacks from residences; public safety; compliance with adopted design standards; and availability of right-of-way. As a result, Class I bikeway projects may result in the removal of vernal pools, riparian habitat or other natural scenic features. The BMP includes policies that encourage bikeway projects to be coordinated with related open space projects such as stream bank restoration and native habitat restoration. In addition, the BMP Update includes a policy that bike path projects be, to the extent feasible, consistent with the Roseville Creek and Riparian Management Plan and Open Space Preserve Management Plans. Nonetheless, this is considered a **potentially significant** impact. Mitigation Measures B-1 & B-2 are intended to minimize the impact on vernal pools, waterways and their associated riparian habitat, including avoidance where feasible. Implementation of Mitigation Measures B-1: Survey for Wetlands & B-2: Survey for Riparian Habitat and Special-status Plant Species would reduce this impact to a less than significant level.

During construction, viewers from neighboring properties and adjacent roadways may be able to see construction activities and construction vehicles and equipment. These activities represent an intrusion into the existing visual character of an area, including open space areas. However, the intrusion would be for a short time period (typically no more than one construction season). As a result, this impact is **less than significant**.

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

Lighting for Class II bike lanes and Class III bike routes will be provided by existing street lights, or in the case of new roads with new street lights. Street lights are present on all City streets regardless of the presence of bike facilities. Class II and III bikeways do not require increased lighting levels and will not result in new or additional lighting above what is normally required for roadways. Class I bike trails typically do not include lighting because the trails are not open during the nighttime and because most trails run through open space areas. However, lighting may be provided for Class I trails within paseos or landscape corridors or at undercrossings or tunnels. Lighting will be provided consistent with the Community Design Guidelines, which include standards for shielding light to avoid excessive off-site glare. The potential impact is **less than significant**.

Mitigation Measures

See Biology Section for Mitigation Measures B-1: Survey for Wetlands and B-2: Survey for Riparian Habitat and Special-status Plant Species.

Agricultural Resources

Would the project:

Environmental Issue	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use?				X

Environmental Setting

In the past, much of the land in Roseville was devoted to ranching activities, with some limited agricultural activities primarily in the northwest area of the City. Currently, there are no active agricultural operations within the City of Roseville. There are nearby agricultural operations in surrounding communities such as unincorporated Placer County.

Regulatory Setting

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland.

Impact Analysis

- a) *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?*
- b) *Conflict with existing zoning for agricultural use, or a Williamson Act contract?*
- c) *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use?*

There are no areas within the City of Roseville which are designated as Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or areas which are part of Williamson Act contracts. Per the City of Roseville's March 2007 Zoning Map, there are no lands within the city zoned for agricultural purposes. Portions of the West Roseville Specific Plan area that have historically been used for agriculture, but zoning entitlements approved concurrent with the specific plan changed the zoning to

non-agricultural. No additional impacts related to the BMP would occur to agricultural resources (City of Roseville zoning map).

Mitigation Measures

None required.

Air Quality

Would the project:

Environmental Issue	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			X	
c) Result in a cumulatively considerable net increase of any criteria for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?		X		
d) Expose sensitive receptors to substantial pollutant concentrations?			X	
e) Create objectionable odors affecting a substantial number of people?			X	

Environmental Setting

Roseville is located in the Sacramento Valley Air Basin (SVAB), which extends from south of Sacramento to north of Redding and is bounded by the Coast Range to the west, the Sierra Nevada to the east, and the Cascade Range to the north. Roseville is noticeably affected by marine airflow through the Carquinez Strait, with prevailing winds from the southwest. This airflow moderates climatic extremes and transports air pollutants into the region from downwind sources such as the San Francisco Bay Area and Sacramento.

The mountains surrounding the SVAB create a barrier to airflow which inhibits the dispersion of air pollutants in some areas, most commonly in autumn and early winter when there are reduced surface winds. The concentration of pollutants is highest when these conditions are combined with smoke or when temperature inversions trap cool air and pollutants near the ground. Carbon monoxide accumulation is a concern in the winter. Summers in Roseville are typically hot and dry, and are characterized by stagnant morning air with a delta sea breeze arriving in the afternoon. These conditions contribute to ozone buildup during the months of May through October.

Air Pollutants - Ozone, particulate matter, and carbon monoxide are pollutants of particular concern and importance within the region. These are the three pollutants for which the Sacramento/South Placer County region still periodically exceeds state and national standards.

- **Ozone (O₃)** - Ozone occurs at both ground level and in the upper atmosphere. Ozone can be either helpful or harmful depending upon its location in the atmosphere. The lower atmosphere is called the troposphere. The troposphere extends from ground level to about 6 miles above the Earth. Ground-

level ozone is an air pollutant that is harmful to breathe and also damages crops and other vegetation, and is a main ingredient of urban smog. Ground-level ozone levels are the highest from late spring through autumn when sunlight intensity is high and the hours of sunlight are longest. The upper atmosphere is called the stratosphere, which extends from about 6 to 30 miles above the Earth. The stratosphere's ozone layer e and protects life on Earth from the sun's harmful ultraviolet (UV) rays (USEPA 2006).

Ground level ozone is not emitted directly into the air from pollutant sources such as cars and trucks. Instead, it is formed instead by photochemical reactions between oxides of nitrogen (NO_x) and reactive organic gases (ROG) in the presence of sunlight. NO_x and ROG are known as ozone precursors. The major sources of NO_x and ROG are emissions from motor vehicle exhaust, gasoline vapors, coatings and solvents, industrial facilities and electric utilities. In California, motor vehicles create the majority of reactive organic gas and nitrogen oxide emissions.

Ozone is a public health concern because it acts as a respiratory irritant and increases susceptibility to respiratory infections and diseases. Exposure to levels of ozone above current ambient air quality standards can lead to human health effects such as lung inflammation and tissue damage and impaired lung functioning. Ozone exposure is also associated with symptoms such as coughing, chest tightness, shortness of breath, and the worsening of asthma symptoms. The greatest risk for harmful health effects belongs to outdoor workers, athletes, children and others who spend greater amounts of time outdoors during periods where ozone levels exceed air quality standards. Elevated ozone levels can reduce crop and timber yields, as well as damage native plants. Ozone can also damage materials such as rubber, fabrics and plastics.

- **Particulate Matter (PM₁₀)** - PM₁₀ consists of particulate matter that is 10 microns or less in diameter. A micron is one-millionth of a meter. Airborne dust contains PM₁₀ and can include a wide range of solid or liquid particles, including smoke, dust, and aerosols. The health effects of PM₁₀ exposure depends upon the specific composition of the particulate matter. Effects may include aggravated asthma, chronic bronchitis, and decreased lung function (American Lung Association 2004).
- **Carbon Monoxide (CO)** - Carbon monoxide is an odorless, colorless gas that is formed by the incomplete combustion of fuels. Emissions from motor vehicles are the primary source of CO in the region. High concentrations of CO can reduce the oxygen-carrying capacity of blood, causing dizziness, headaches, unconsciousness, and even death. CO binds to hemoglobin in the bloodstream more strongly than oxygen and both the cardiovascular system and the central nervous system can be affected. State and federal ambient air quality standards for CO have been set to keep CO emissions below that level which adversely affects the cardiovascular and nervous systems.

Global Climate Change - The State Legislature signed AB 32, in 2006, which acknowledged global climate change and charged the California Air Resources Board (CARB) with developing regulations to address global climate change. CARB is mandated to provide preliminary actions to reduce greenhouse gas emissions.

Global climate change is a change in the average weather of the earth, which can be measured by wind patterns, storms, precipitation, and temperature. It is exacerbated by greenhouse gases, which trap heat in the atmosphere (thus the "greenhouse" effect). Greenhouse gases include carbon dioxide, methane, and nitrous oxide, and are emitted by natural processes and human activities. The accumulation of greenhouse gases in the atmosphere regulates the earth's temperature, and is natural and desirable, as without it the Earth's surface would be about 61 degrees cooler.

Scientific evidence indicates that emissions from human activities, such as electricity production and vehicle emissions, have elevated the concentration of these gases in the atmosphere, and are increasing the rate and magnitude of climate change to a degree that could present hazardous conditions. Potential adverse effects of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels, changes to

ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.

The potential for climate change impacts at specific locations remains uncertain, and to assign specific impacts to a project would be speculative. Some conclusions can be drawn about the potential in general for the Roseville area to be subject to increased likelihood of flooding, drought, and susceptibility to the increased potential for infectious diseases as cited above. An individual project, even a very large project, does not in itself generate enough greenhouse gas emissions to significantly influence global climate change. Global climate change is a cumulative process. A project contributes to this potential impact through its cumulative incremental contribution combined with the emissions of all other sources of greenhouse gases.

There are currently no established thresholds for measuring the significance of a project's cumulative contribution to global climate change. However, individual projects can contribute to greenhouse gas emission reductions by incorporating features that reduce vehicle emissions, and maximize energy-efficiency.

The City has existing programs in place that reduce and minimize greenhouse gas emissions:

- City Adopted National Action Plan for Energy Efficiency (2006)
- Joined California Climate Action Registry (2006)
- City adopted "Smart Choices for Roseville's Future: Implementation Strategies to Achieve Blueprint Project Objectives (June 2005)
- City has installed solar electric generation (PV) on several City Facilities.
- City's Civic Center and Roseville Electric buildings with clean, renewable power by purchasing 100% of their energy use from Green Roseville.
- 20% renewable power resources in Roseville Electric's power portfolio.
- Shade Tree Program
- Roseville Electric goal to reduce energy requirements by 5% by 2012
- Alternatively Fueled City Vehicles
- Electric Vehicle Charging Stations
- City Traffic Signal Head Retrofit from traditional incandescent to LED
- City facilities retrofitted with a HVAC efficiency management program
- Solar Electric (PV) Incentive Programs
- Asphalt Recycling
- Residential Energy Efficiency Programs
- Energy Efficiency Programs for Low Income Residents
- Commercial Energy Efficiency Programs
- Tree Mitigation Ordinance
- Parking Lot Shade Tree Ordinance
- Recycling Drop-Offs throughout City
- Summer Youth Bus Pass
- Bicycle Incentive Programs
- ITS (Intelligent Transportation System) for traffic management
- Alternatives to Paper at the Library

Since there are no thresholds of significance against which to measure the impacts of the project, the project has been evaluated qualitatively relative to its incremental contribution to the overall issue of global warming. The magnitude of global warming is such that the contributions of the proposed project itself are negligible. The project would include minimal sources of greenhouse gas emissions, primarily during construction. However, as a alternative transportation and recreation oriented project, the BMP would also be beneficial in terms of minimizing greenhouse gas emissions.

Regulatory Setting

Federal - The Federal Clean Air Act (CAA) governs air quality in the United States. The United States Environmental Protection Agency (USEPA) administers the Clean Air Act (CAA). The USEPA and CARB have established ambient air quality standards for common pollutants. The ambient air quality standards are levels of contaminants which represent safe levels that avoid specific adverse health effects associated with each pollutant. The ambient air quality standards cover what are called “criteria” pollutants because the EPA regulates them by developing human health-based and/or environmentally-based criteria (science-based guidelines) for setting permissible levels. The set of limits based on human health is called primary standards. Another set of limits intended to prevent environmental and property damage is called secondary standards (USEPA 2007).

The EPA classified most of Placer County, including Roseville, as a “serious non-attainment” area for the eight-hour federal ozone standard in April 2004. EPA requires jurisdictions under this classification to reach attainment within nine years.

State - Air quality in California is governed by the California Clean Air Act (CCAA). The CCAA is more stringent than the federal CAA. The CCAA is administered by the California Air Resources Board (CARB) at the State level and by air quality management districts at the regional and local levels. CARB classifies Placer County, including Roseville, as non-attainment for ozone and PM₁₀. For carbon monoxide and all other criteria pollutants, Placer County is designated as attainment or unclassified (California Air Resources Board 2005).

Regional – Portions of Placer County, including Roseville, and are located in a multi-county area that is referred to as the Sacramento Federal Ozone Non-attainment Area. The air quality and air pollution control districts within the area are developing a regional Ozone Attainment Plan that will become part of the State Implementation Plan (SIP). The focus of this regional plan is to reduce the emissions of ROG and NO_x within the Sacramento metropolitan area with a goal of attainment by 2013. The regional air quality districts are required to submit a rate of progress plan detailing the progress in meeting the eight-hour ozone standard within two years of the designation of “serious non-attainment”. The regional air quality districts adopted the Rate of Progress plan in February 2006.

Local – The Placer County Air Pollution Control District (PCAPCD) regulates air quality at the regional and local level. The Placer County Air Quality Control District has established significance thresholds for daily emissions resulting from construction or other projects. The significance thresholds are 82 pounds per day for ROG, NO_x, and PM₁₀ and 550 pounds per day for CO. Projects that result in emissions above these levels would result in a significant impact that requires mitigation.

The Air Quality Element of the General Plan contains goals and policies to improve air quality in Roseville. These policies include encouraging alternative modes of transportation, including bicycling. In addition, the City has existing programs in place that reduce and minimize air quality emissions as noted in the Global Climate Change Discussion, above.

Impact Analysis

Where applicable, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

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

The General Plan Air Quality Element cites the BMP as an implementing policy document for air quality improvements because it encourages bicycling for transportation purposes. This is consistent with air quality planning and transportation planning efforts in the region, which due to the ozone non-attainment status emphasize alternative modes of transportation. To the extent that increased levels of bicycling

reduce vehicle trips, vehicle idling and vehicle miles traveled, implementation of the BMP Update would reduce the emissions of criteria pollutants, including NO_x and ROG, the precursors to ozone. As a result, implementation of the BMP Update will not conflict with local, regional, state or federal air quality planning, and the impact is **less than significant**.

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

Construction Emissions – Construction of new Class I bike trails and Class II bike lanes and asphalt overlay maintenance projects for existing Class I and II facilities would generate an increase in criteria pollutants and particulate matter. Grading, trenching, and earthmoving activities result in dust generation. The operation of construction equipment results in diesel fumes that contribute to the release of NO_x and ROGs. Asphalt paving of bikeways and associated parking lots will result in ROG emissions.

Most new Class II bike lane projects will be associated with vehicular road widening projects. Air quality impacts for the entirety of those road widening projects will be evaluated separately either by Specific Plan EIR's, the Capital Improvement Program EIR, or other individual environmental documents.

Some new Class II bike lanes are proposed separate from road widening projects. In most cases, these projects may involve only re-striping. However, in some of these cases road widening may be necessary and may be installed directly under the purview of the BMP Update. An example is Industrial Avenue, which is a stretch of road about 2.35 miles long for which a Class II bike lane is proposed, but no vehicular road widening is proposed.

Class I bike trails are constructed in phases. The reasons for phased construction of trails are varied. For infill projects, these reasons are typically related to funding availability, environmental permitting and/or right-of-way acquisition. For specific plan projects, the reasons are typically due to funding availability and the assignment of trail construction responsibilities in the project Development Agreement.

Figure 2-3 shows proposed bikeway projects separated into logical segments for construction. Most of the Class I trail segments are 1 mile or less in length. However, several longer trail segments are shown, with the longest about 2.5 miles. Most of these longer segments are trails that are located within Specific Plans, for which an EIR has been prepared and for which no further air quality analysis is required. Even though not reflected on Figure 2-3, it is likely that the longer trail will be broken up into phases of 1 mile or shorter.

Although this environmental document is not project-specific, it is possible to calculate air quality emissions impacts for typical bikeway construction projects because air quality emissions calculations are not site-specific. As a result, this analysis includes air quality calculations using the Road Construction Emissions Model computer program. This model is described in the Sacramento Air Quality Management District's Guide to Air Quality Assessment (SMAQMD, 2004) and is available on the SMAQMD web site. This model estimates emissions (lbs/day) generated from construction equipment and vehicles used during the development of roadways and can be used for paved bikeway projects. This model is used by local governments and air quality districts, project developers, and environmental consultants.

Although most bikeway construction projects are 1 mile or less in length, there are a couple of projects that are longer, including the Industrial Avenue Class II bike lane project. As a result, the air quality calculations assume a project length of 2.5 miles. Other assumptions include a 2 month construction period, starting year of 2008, total project area of 7 acres (based on the project length), and a maximum area disturbed per day of 3 acres. The model also assumes the use of 4 gas generator powered signal boards. For most projects proposed by the BMP Update, this is a conservatively high assumption because the City often uses solar-powered signal boards and because bike trail projects occur in open space and require very little traffic control. However, Class II bike lane construction may need signal boards for traffic control.

The Road Construction Emissions Model estimates the typical equipment to be used for each of the four phases of bikeway construction, which are grubbing/land clearing, grading/excavating, drainage/subgrade, and paving. See Appendix B for a list of vehicles assumed to be used in each phase. The emissions are calculated separately for each phase of construction since each construction phase is typically conducted consecutively, not at the same time. Based upon these inputs, the model calculated maximum emissions for ROG, CO, NO_x, and PM₁₀ in lbs/day. The model results are summarized in Table 3-1, which compares the results to the emissions thresholds set by PCAPCD:

Table 3-1: Construction Equipment Emissions

	ROG (pounds/day)	NO_x (pounds/day)	CO (pounds/day)	PM₁₀ (pounds/day)
Significance Threshold	82	82	550	82
Maximum Daily Emissions – Model Results	11	51	51	18
Exceed Threshold?	No	No	No	No

As can be seen in Table 3-1, the model emissions are well below the PCAPCD daily significance thresholds. As a result, the air quality impact of individual bikeway projects is **less than significant**. It should be noted that the above calculations do not take into account implementation of the erosion and dust control measures contained in the City of Roseville Grading Ordinance, one of the City’s Mitigation Policies and Standards.

Utilization of Bikeways – Implementation of the BMP Update will result in the construction of new bikeways and the development of new education, enforcement and encouragement programs, with the intention of increasing the use of bicycles for transportation and recreation purposes. To the extent that increased levels of bicycling reduce vehicle trips, vehicle idling and vehicle miles traveled, implementation of the BMP Update would reduce the emissions of criteria pollutants.

Construction of Class I trails would further increase walking, jogging, rollerblading and other non-cycling recreational trail use. Most recreational users will be Roseville residents, with some non-residents. The City expects that a majority of bikeway users to begin and end their recreational trips at their home or worksite. However, some recreational users, including both residents and non-residents, will drive to the starting point of their recreational trip. This will result in auto emissions. The number of new recreational trips is not expected to be substantial in relation to the overall trip generation for the region, and most of these trips will be outside peak commute hours when vehicular delays and idling exacerbate vehicle-related emissions. The impact is **less than significant**.

Maintenance Emissions – Maintenance activities for Class I, II and III bikeways will include weed control (including spraying), street/trail sweeping, trash collection, drainage repair, asphalt repair and other infrequent but regular activities that involve the use of automobiles or trucks. Most of these activities will be conducted by existing field crews. Bikeway development is not anticipated to substantially increase the number of autos/trucks that are involved in these activities, with at most one additional field crew using one additional truck. Most maintenance activities will also be outside peak commute hours when vehicular delays and idling exacerbate vehicle-related emissions. Weed spraying will be at most three times per year and is not anticipated to result in any air quality impacts. Further, it is expected that the benefits of increased use of bicycles for transport will outweigh the potential impact of infrequent maintenance activities. The impact is **less than significant**. The air quality impacts of infrequent asphalt seal coat projects (anticipated every 5 to 8 years for each trail segment) are addressed under construction emissions.

- c) *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?*

Construction Emissions – Section b) includes a summary of emissions modeling and a discussion of air quality impacts of a single large bikeway project. The assumptions used in the emissions model, including trail length, amount of disturbed acreage and the use of 4 gas-powered signal boards, are considered to result in a conservatively high calculation for air quality emissions. Even with these conservatively high assumptions, this analysis found that the air quality emissions for a large bikeway project were well below the PCAPCD thresholds for significance.

The BMP Update anticipates buildout of bikeway construction project over a 20 year time frame. There are approximately 50 Class I and II bikeway construction projects planned in the BMP Update. This is about an average of 2.5 bikeway projects per year. Even if more than two bikeway projects occur during the same year, it is unlikely all three projects will be actively under construction and generating air emissions simultaneously on any given day. This is the case because many of the 50 projects identified are very short trail segments that may take as little as a month to construct. As a result, it is reasonable to assume that on any given day there would likely be only 2 bikeway projects under construction.

As most of the planned bikeway projects are 1 mile or less in length, it is highly unlikely that two major bikeway projects will occur simultaneously. However, Table 3-2 shows the result if this scenario actually occurs and two major projects are under construction at one time. The figures provided in Table 3-2 were calculated by doubling the emissions of the large bikeway project analyzed in the response to question b). This assumes that both projects would be generating emissions simultaneously, and that they would each be in the construction phase generating the highest daily emissions.

Table 3-2: Cumulative Construction Equipment Emissions

	ROG (pounds/day)	NO_x (pounds/day)	CO (pounds/day)	PM₁₀ (pounds/day)
Significance Threshold	82	82	550	82
Maximum Daily Emissions for Two Major Projects	22	102	102	36
Exceed Threshold?	No	Yes	No	No
Maximum Daily Emissions for two Major Projects with Control Measures (20% Reduction)	17.6	81.6	81.6	30
Exceed Threshold?	No	No	No	No

Without implementation of construction control measures, Table 3-2 shows that the two large and simultaneously-constructed bikeway projects would cumulatively exceed the significance threshold for NO_x. This is a **potentially significant impact**.

Mitigation Measures AQ-1: Construction Emission Control Measures would require compliance with construction emission control measures previously agreed upon by the City and the Placer County Air Pollution Control District. These control measures are anticipated by the City of Roseville and PCAPCD to reduce construction emissions by 20%. As shown in Table 3-2, implementation of the construction control measures reduces construction emissions to a level that is within the criteria pollutant emission thresholds, reducing this impact to a less than significant level.

Normal Use of Bikeways –Recreational use of Class I trails may increase as a result of BMP implementation, and some users may drive a car to the start/end point of their bike outing. However, the amount of new recreational trips and resultant increase in air emissions is expected to be nominal. Further, most of these trips will be outside peak commute hours when vehicular delays and idling exacerbate vehicle-related emissions. The normal use of bikeways could also benefit air quality in the long-term by reducing vehicle trips and decreasing emissions. The potential cumulative impact is **less than significant**.

Maintenance Emissions – It was noted in the response to question b), above, that implementation of the BMP Update may result in the need for one additional field maintenance crew using one additional truck. Most maintenance activities will also be outside peak commute hours when vehicular delays and idling exacerbate vehicle-related emissions. Further, it is expected that the benefits of increased use of bicycles for transport will outweigh the potential impact of infrequent maintenance activities. As a result, the potential cumulative impact is **less than significant**.

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

Sensitive receptors, such as children, elderly persons, and acutely or chronically ill people are affected more intensely by elevated concentrations of air pollutants. The construction of bikeway projects pursuant to the BMP would result in brief periods of elevated pollutant concentrations. The pollutants would be generated by paving activities, and use of heavy construction equipment and diesel powered equipment. The sensitive receptors most likely to be affected are children playing in parks during construction. However, pollutant concentrations are expected to dissipate before they cause adverse effects to children or others. In addition, construction activities would typically take place for no more than one construction season on any given route and asphalt paving activities would last no more than a few days at any specific location, and the use of diesel powered equipment is anticipated only intermittently. Therefore, the impact would be **less than significant**.

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

Normal use of bikeways would not create any odors. Construction and maintenance of Class I and II bikeways could result in the generation of odors. Odors could be generated by use of diesel powered equipment and by paving. Construction activities would typically take place for no more than one construction season on any given route and asphalt paving activities would last no more than a few days at any specific location. The use of diesel powered equipment is anticipated only intermittently. Since the odors being generated are of limited and intermittent duration the impact would be **less than significant**.

Mitigation Measures

Mitigation Measure AQ-1: Construction Emissions Control Measures. When two or more major bikeway projects (as defined in the discussion of bike project emissions) are planned for construction during the same construction season, the projects shall implement the following measures to reduce construction emissions to the extent feasible. Dust control measures must be implemented for all projects in accordance with the City of Roseville Grading Ordinance, and the APCD Fugitive Dust Rule 228.

1. The applicant shall submit to the District a Construction Emission/Dust Control Plan within thirty (30) days prior to groundbreaking. If the District does not respond within twenty (20) days, the plan shall be considered approved. The plan must address the minimum requirements found in section 300 and 400 of District Rule 228, Fugitive Dust (www.placer.ca.gov/airpollution/airpolut.htm). The applicant shall keep a hard or electronic copy of Rule 228, Fugitive Dust on-site for reference.
2. The Construction Emission/Dust Control Plan shall include a comprehensive inventory (i.e. make, model, year, emission rating) of all heavy-duty off-road equipment (50 horsepower or greater) that will be used an aggregate of 40 or more hours for the construction project. The project representative shall provide the District with the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman. The plan shall demonstrate that the heavy-duty (> 50 horsepower) off-road vehicles to be used in the construction project, including owned, leased and subcontractor vehicles, will achieve a project wide fleet-average 20 percent NOx reduction and 45 percent particulate reduction compared to the most recent CARB fleet average. The District should be contacted for average fleet emission data. Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit

technology, after-treatment products, and/or other options as they become available. Contractors can access the Sacramento Metropolitan Air Quality Management District's web site to determine if their off-road fleet meets the requirements listed in this measure. http://www.airquality.org/ceqa/Construction_Mitigation_Calculator.xls

3. Clean earth moving construction equipment with water, or sweep clean, once per day, or as necessary (e.g., when moving onsite), consistent with NPDES BMP's, local ordinances and municipal codes. Water shall be applied to control dust as needed to prevent dust impacts offsite. Operational water truck(s), shall be onsite, as required, to control fugitive dust. Construction vehicles leaving the site shall be cleaned, as needed, to prevent dust, silt, mud, and dirt from being released or tracked off-site.
4. Spread soil binders on unpaved roads and employee/equipment parking areas. Soil binders shall be non-toxic in accordance with state and local regulations. Apply approved chemical soil stabilizers, or vegetated mats, etc. according to manufacturer's specifications, to all-inactive construction areas (previously graded areas which remain inactive for 96 hours).
5. Minimize diesel idling time to a maximum of 10 minutes.
6. Use California Air Resources Board (CARB) low-sulfur diesel fuel.
7. Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary diesel power generators, if feasible.

Biological Resources

Would the project:

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

Environmental Setting

The City of Roseville is located in southwestern Placer County within the transitional zone between the higher elevation Sierra Nevada range and lowlands of the Sacramento Valley. The dominant biological characteristics and habitats in the Roseville area are described below.

Open Space - The City's extensive open space system includes more than 1,300 acres of publicly owned open space. The open space areas are located primarily along creeks and streams, in part to provide flood protection. The open space areas includes oak woodlands, grasslands, perennial and intermittent streams, seasonal wetlands and vernal pools, and riparian vegetation. The open space includes over 700 acres of restricted-use preserve areas that are intended to protect natural resources, including wetland and riparian oak woodland habitats.

Watersheds - Three watersheds drain the city: Dry Creek, Pleasant Grove and Curry Creek. The Dry Creek watershed encompasses a small part of the North Central Roseville area, and most or all of Northeast Roseville, Stoneridge, Southeast Roseville and the Infill planning areas. The Pleasant Grove Creek watershed covers portions of North Roseville, North Central Roseville, Highland Reserve North, Del Webb, North Industrial, Northwest Roseville, and West Roseville planning areas. The Curry Creek watershed covers a small portion of the North Roseville planning area.

Biological Communities/Habitats - The vegetation and wildlife resources found in Roseville can be broadly classified by habitat types: grasslands, oak woodlands, riparian areas and creeks, seasonal wetlands, and vernal pools.

- **Annual Grasslands** - Tracts of self-sustaining grasslands still exist in the northern and western undeveloped edges of Roseville. Less extensive areas of grassland can be found in smaller undeveloped areas scattered throughout the City. Before the Spanish and later immigrants arrived in the Central Valley, the grasslands consisted of native species. The effects of grazing and clearing large tracts for agriculture resulted in the decline of native species, so that today most of the grasslands in the region are non-native. These areas do, however, provide important habitat for birds and other wildlife.
- **Oak Woodlands** - The oak woodlands found in Roseville generally occur in proximity to the City's major stream channels. The microclimates and alluvial soils provide ideal conditions for the deeper rooting shrubs and trees found in these habitats. Most woodland areas are relatively open with little shrub growth. Primary species defining oak woodland include interior live oak (*Quercus wislizeni*), valley oak (*Quercus lobata*), and blue oak (*Quercus douglasii*). Valley oak and western sycamore are components of the riparian community, but they are typical of higher terraces. In the absence of the influence of perennial watercourses and outside of the immediate floodplain area, oak species thin out, forming less dense vegetation communities and creating an intermittent open canopied forest, or oak savannah. The oak woodlands are suitable habitat for a variety of mammals and birds, including nesting raptors. Urban development has to a degree fragmented Roseville's oak woodlands into "islands" of habitat, constraining their ability to support wildlife.
- **Riparian and Creek Areas:** The riparian areas support a diverse biological community. Situated along and within the City's creeks and water courses, the riparian corridors are a source of food and water for wildlife, and provide cover, nesting sites, and migration and dispersal corridors for wildlife. Urban development has constrained much of the riparian habitat to narrow corridors. This fragmentation of riparian habitat results in narrow reaches that sometimes interrupt the opportunities for cover, nesting and foraging provided in the more intact sections of riparian vegetation.

Intact riparian habitat is ideally comprised of a canopy of mature trees, a midstory or intermediate layer of shrubs, and an herbaceous ground cover layer. Plant species commonly associated with Roseville's riparian habitat include willows (*Salix* spp.), cottonwood (*Populus fremontii*), western sycamore (*Platanus racemosa*), box elder (*Acer negundo* var. *californicum*), and white alder (*Alnus rhombifolia*). Typically, willows and cottonwoods form the dominant plant communities along the immediate creek sides.

Anadromous chinook salmon (*Oncorhynchus tshawytscha*) and Central Valley steelhead (*Oncorhynchus mykiss*) are known to be present seasonally in Dry Creek and its upper tributaries, including Secret Ravine and Miners Ravine. Steelhead is listed by the U.S. Fish and Wildlife Service (USFWS) as a threatened species under the Endangered Species Act (ESA). Chinook salmon within the Central Valley fall/late fall-run are listed as a California Species of Concern.

- **Seasonal Wetlands:** Many of the wetland areas found in Roseville are seasonal in nature. Three primary types of seasonal wetlands are found in the City: intermittent drainages, vernal pools, and seasonal marsh. The wider portions of Curry Creek and Pleasant Grove creek support seasonal marsh and emergent vegetation. Intermittent drainages are typically narrow channels one to ten feet in width that flow over a variety of substrata in Roseville. Most are wet only during the winter, transporting run-off. They typically are dry during the summer with scattered ponds, but may contain water from adjacent urban runoff.
- **Vernal Pools:** Vernal pools represent a significant seasonal wetland resource in Roseville. They are considered unique not only due to their limited natural occurrence and distribution, but also because of the unique native plant and animal species they support. Found in the valley grassland areas, vernal pools are typically small, shallow, hardpan-floored depressions that fill with water during the wet winter season, gradually drying by late spring or early summer.

Two types of vernal pools occur in the Roseville area. The first, northern volcanic mud flow vernal pools, occur in shallow depressions on Mehrten mud flow formations where the slope is generally less than two percent. The second type of vernal pool is the northern hardpan. These generally occur on the Inks or Cometa soil series found at the lower watershed portions of creek floodplains. Vernal pool habitats, although relatively abundant in Roseville and the Sacramento/Placer County region, are considered unique on a statewide basis.

Regulatory Setting

Federal and State— Federal and State regulations that map apply to the BMP Update include:

- **Endangered Species Act (ESA)** – The United States Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) administer the ESA. The ESA requires that projects do not jeopardize endangered or threatened (listed) species, or result in adverse modification or damage to their habitat. NMFS is responsible for protecting marine and anadromous fisheries. All other listed species are under jurisdiction of the USFWS. Several species listed under ESA occur or have the potential to occur within Roseville as shown in Appendix C.

The City has entered into a memorandum of understanding (MOU) with NMFS to address water quality issues related to Central Valley steelhead. The MOU is intended to establish a cooperative relationship between the City and NMFS to better protect and manage the fisheries resource.

- **Migratory Bird Treaty Act (MBTA)** – USFWS implements the MBTA. The MBTA regulates activities that could affect birds protected under the act, or their nesting or foraging habitat.
- **Clean Water Act (CWA)** – The CWA is a federal law that protects water quality of lakes, rivers, aquifers and coastal areas. Under CWA, the Environmental Protection Agency (EPA) sets water quality standards, and requires permits for discharges into the nation's waters. Jurisdictional areas that could be affected by bikeway projects include areas within the ordinary high water mark of perennial streams, intermitting streams with a defined bank, stream channels that convey runoff (except artificial channels that convey irrigation water), wetlands and vernal pools. Under the CWA, the U.S. Army Corps of Engineers may require permits for impacts to wetlands or other Waters of the United States. The State Water Resources Control Board (SWRCB) and Regional Water Quality

Control Board (RWQCB) may also regulate waste discharge, including erosion, through the National Pollutant Discharge Elimination System (NPDES).

- **California Endangered Species Act (CESA)** – The Department of Fish and Game (DFG) administers the CESA. The CESA prohibits the take of plant and animal species designated as endangered, threatened or rare. The act directs agencies to consult with DFG on projects or actions that could affected listed species.
- **Streambed Alteration Agreement (SAA)** – The DFG regulates work that may substantially affect rivers, streams and lakes. Such actions must be authorized by DFG through an SAA. This permit requirement typically applies to any work done within the ordinary high water mark of a stream or lake. However, this requirement may also apply to work within a 100-year floodplain of a body of water.

Special Status Species - Special-status species are plants and animals that are legally protected under the state and federal Endangered Species Acts (ESA and CESA) or other regulations, and include species that are considered significantly rare by the scientific community to qualify for listing status.

Special-status animal and plant species use the following state, federal, and local designations:

CNPS	California Native Plant Society Listing
FE	Federally listed Endangered
FC	Federal Candidate for Listing
FT	Federally listed Threatened
MBTA	Birds protected by the Migratory Bird Treaty Act
SE	State-listed Endangered
SLC	Species of Local Concern
SR	State-listed Rare
SSC	State Species of Concern
ST	State-listed Threatened
SVP	California Department of Fish and Game (DFG) Sensitive Vernal Pool Taxa

The DFG Habitat Conservation Division maintains the California Natural Diversity Database (CNDDDB), a searchable database of certified records of special-status species occurrences throughout the state. The CNDDDB provides natural history and location information on rare, threatened, endangered, and special-status species and natural communities. The information is available to the public, other agencies, and conservation organizations (California Department of Fish and Game 2004).

CNDDDB records for the Roseville, Folsom, Citrus Heights, Rocklin, and Pleasant Grove USGS quadrangles were reviewed, along with listed species lists contained within the Dry Creek Greenway Regional Vision EIR (Placer County 2007), the Roseville Creek and Riparian Management and Restoration Plan Initial Study (City of Roseville 2005), and the Roseville Bikeway Master Plan Update EIR (2002). This data was utilized in making a determination of the project's potential impact to special-status species. A list of Special-Status Species that may be found in Roseville is provided as Appendix C.

Local - The City regulates the protection of its native oak trees through the Tree Preservation Ordinance. This ordinance includes standards that limit disturbance within the protected zones of oaks and emphasizes avoidance of trees. Where avoidance is not feasible and tree removal is authorized, mitigation is required on an inch for inch basis.

The General Plan Open Space and Conservation Element also includes policies related to biological issues. These policies are generally related to the preservation and rehabilitation of riparian corridors and native oak woodlands. The General Plan notes that Class I bike trails are permitted within open space areas. The General Plan further states that trails and other public recreation uses should be located to avoid adverse impacts to natural resource areas, and that access may be limited to protect vernal pools and wetlands.

Impact Analysis

- a) *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

As noted in the Environmental Setting, Regulatory Setting and Appendix C, the City of Roseville has habitat that may support a variety of special-status plant and animal species. The BMP Update includes proposed projects, some of which may be located in areas that support special-status plant or animal species. Construction of Class I and II bikeways may therefore adversely impact, either directly or through habitat modifications, the listed special-status plant and animal species. The General Plan includes policies that encourage the preservation of important biological resources, and the City would attempt to avoid impacts where feasible. However, this is a **potentially significant impact**. The following Mitigation Measures, which require compliance with applicable local, state and federal regulations, would reduce this impact to a less than significant level:

- B-1: Survey for Wetlands.
- B-2: Survey for Riparian Habitat and Special-status Plant Species
- B-3: Preliminary Survey for Special-status Animal Species.
- B-4: Pre-construction Survey for Swainson's Hawk.
- B-5: Pre-construction Survey for Other Raptors.
- B-6: Pre-construction Survey for Western Burrowing Owls.
- B-7: Pre-construction Survey for Migratory Birds.
- B-8: Pre-construction Survey for Western Pond Turtle, Western Spadefoot Toad and Pallid Bat.

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

Riparian Habitat - Riparian habitat occurs along the banks of Dry Creek, Pleasant Grove Creek and their tributaries. Riparian habitat is recognized by the General Plan as an important resource. In addition, riparian habitat is recognized by the State of California as an important resource, the protection of which is administered by the DFG through the Streambed Alteration Agreement (CDFG Section 1600) process. The BMP Update includes Class I bike trail projects that occur within the creek corridors, and Class II projects also have the potential for affecting riparian areas where they abut roadways.

The City Tree Preservation Ordinance, which is part of the City's adopted Mitigation Policies and Standards, would help reduce potential impacts to riparian habitat since oak trees are one of the common species in the riparian zone. The City Council further adopted the Roseville Creek and Riparian Management and Restoration Plan in 2005. The primary purpose of the plan is to preserve and enhance the critical functions and habitat of the riparian areas and creeks. The plan recognizes that bike trails are planned for construction within creek corridors, and it includes best management practices for activities within creek corridors, including bike path development. The RCRM RP includes plans for restoration of creek corridors and revegetation of riparian habitat along Roseville's creeks. Implementation of the RCRM RP would reduce the potential for impacts to riparian habitat.

In addition, the BMP Update includes the following policies that are further intended to reduce the potential environmental impacts of bikeway projects:

- Environmental Policy 3: Coordinate, and where feasible and beneficial, partner bike trail projects with stream bank restoration, native habitat restoration, flood control projects and other related open space projects.
- Environmental Policy 5: To the extent feasible, during bike path planning, construction and maintenance ensure consistency with the Roseville Creek and Riparian Management and

Restoration Plan and open space preserve management plans.

Even with the Tree Preservation Ordinance, RCRMPP and BMP policies, there is still a potential for the construction of Class I and II bikeways to adversely impact riparian habitat. The level of impact for a specific bikeway project is not known at this time, and would depend on the location of the project, the extent of disturbance, and actual habitat loss. This is a **potentially significant impact**. Mitigation Measures B-2: Survey for Riparian Habitat and Special-status Plant Species, which requires compliance with applicable local, state and federal regulations, would reduce this impact to a less than significant level.

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

The BMP Update includes proposed projects that are located in areas that support vernal pools, seasonal wetlands or other Waters of the United States. Construction of Class I and II bikeways may therefore adversely impact, either directly or through habitat modifications, wetlands as defined in Section 404 of the Clean Water Act. The General Plan includes policies that encourage the preservation of important biological resources, including wetlands, and the City would attempt to avoid impacts where feasible. However, this is a **potentially significant impact**. Mitigation Measure B-1: Survey for Wetlands, which requires compliance with applicable state and federal regulations, would reduce this impact to a less than significant level.

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

Proposed Class I bike paths would be located within open space corridors, which serve as habitat for migratory animal species. Migratory species include anadromous fish and birds protected under the MBTA. As noted previously, Roseville's open space corridors are already constrained by urban development and in some cases discontinuous. The proposed bikeway projects would not substantially alter the continuity of open space corridors. However, they do have the potential to interfere with the movement of migratory fish and wildlife species. For example, bridge abutments or piers and slope protection of bikeway projects could be located in or near waterways. Also, construction activities, including activities such as de-watering or construction staging areas, may on a temporary basis interfere with the movement of native animals.

The City's Design/Construction Standards, Tree Preservation Ordinance and Grading Ordinance require the implementation of Best Management Practices that are intended to minimize the impact on waterways. These BMPs include:

- ❖ Preparation of a Stormwater Pollution Prevention Plan (SWPPP), including erosion and sediment control
- ❖ Adherence to the National Pollutant Discharge Elimination System (NPDES) permit
- ❖ Installation of high visibility fencing to protect important biological resources
- ❖ Pre-construction meeting to address the presence of the habitat and minimization of disturbances

With these protective measures included as part of the construction requirements, the BMP would not substantially interfere with the movement of any native resident or migratory fish or wildlife species. The impact is **less than significant**. It should also be noted that mitigation measures B-2: Survey for Riparian Habitat and Special-status Plant Species and B-7: Pre-construction Survey for Migratory Birds further minimize the potential for impact to migratory species.

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

Implementation of the BMP Update will include the construction of Class I and II bikeways. These construction activities may damage or remove native oak trees. The City Tree Preservation Ordinance contains standards for the protection of native oak trees that have a diameter at breast height (DBH) of six inches or more. The provisions of the Tree Preservation would be applied to any City project, including bikeway projects that may harm, destroy, kill, or remove a protected tree native oak. Protective measures include avoidance, protective fencing and warning signs, and implementation of arborist recommendations. If protected trees cannot be avoided and would require removal, the ordinance requires mitigation on an inch for inch DBH basis. Mitigation for native oak trees proposed for removal may be in the form of relocation, replanting in kind, or payment of in-lieu fees.

The City's adopted Findings for Mitigating Policies and Standards include a determination that the Tree Preservation Ordinance would mitigate this potential impact to a **less than significant** level.

f) *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

There are no habitat conservation plans or natural community conservation plans within the City of Roseville. As noted in the land use section, some of the proposed Class I bike paths may be located within open space areas that are subject to Operations and Management (O&M) plans established for the purpose of protecting and maintaining the open space areas and related resources such as wetlands. O&M plans are typically required as a condition of CWA wetland permits issued by the U.S. Army Corps of Engineers. As noted in the land use section, construction of a bike path within a preserve is a **potentially significant impact**. Mitigation Measure LU-1: Agency Consultation would reduce this impact to a less than significant level.

Mitigation Measures

See Land Use Section for Mitigation Measure LU-1: Agency Consultation.

Mitigation Measure B-1: Survey for Wetlands. During the preliminary engineering and environmental review phase of each Class I or Class II bikeway project that involves work within open space or undeveloped property or may otherwise disturb wetlands, including vernal pools, a survey for wetlands shall be conducted by a qualified biologist in accordance with the following:

1. A wetland delineation shall be prepared in accordance with the requirements of the Clean Water Act and U.S. Army Corps of Engineers.
2. If no wetlands are documented during the survey, no further mitigation or agency consultation is required.
3. If wetlands are identified within the project area, the City shall as feasible avoid impacts to the resource.
4. If feasible avoidance measures do not eliminate the impact to wetlands, the City shall prior to construction consult with and obtain required approvals from the U.S. Army Corps of Engineers per the Clean Water Act. The typical approval process includes:
 - a. Corps verification of the wetland delineation.
 - b. Corps approval of a permit (either Nationwide or Individual), including a mitigation plan for "no net less" of wetlands.
 - c. Regional Water Quality Control Board approval of Water Quality Certification
 - d. If vernal pools are affected, consultation with the U.S. Fish and Wildlife Service to determine appropriate mitigation.
 - e. Consultation with California Department of Fish and Game to determine whether or not the project requires a Streambed Alteration Agreement.

Mitigation Measure B–2: Survey for Riparian Habitat and Special-status Plant Species. During the preliminary engineering and environmental review phase of each Class I or Class II bikeway project that involves work along a stream corridor or within open space or undeveloped property or may otherwise disturb special-status plant species, a survey for special-status plants shall be conducted by a qualified botanist in accordance with the following:

1. If no riparian habitat or special-status plants are documented during the survey, no further mitigation or agency consultation is required.
2. If riparian habitat or special-status plants are identified within the project area, the City shall as feasible avoid impacts to the resource.
3. If feasible avoidance measures do not eliminate the impact to special-status plant species, the City shall consult with and obtain approvals from the applicable regulatory agency (National Marine Fisheries Service for riparian habitat along Dry Creek and its tributaries, U.S. Fish and Wildlife Service for all federally-listed plants, and California Department of Fish and Game for state-listed plants and riparian habitat) to determine appropriate measures for further protection or mitigation of the impact.
4. If construction activities are proposed within 20 feet of the dripline of *Sambucus mexicana*, host of the Valley elderberry longhorn beetle, the City shall initiate formal consultation with the U.S. Fish and Wildlife Service to determine appropriate mitigation. Mitigation measures may include conservation measures (protective fencing) and compensation.
5. If construction activities are proposed between 20 and 100 feet from the dripline of *Sambucus mexicana*, host of the Valley elderberry longhorn beetle, the City shall initiate informal consultation with the U.S. Fish and Wildlife Service to determine appropriate mitigation. Mitigation may include conservation measures (protective fencing) to create a 20-foot buffer around the dripline.
6. If construction activities will impact riparian habitat under jurisdiction of the Department of Fish and Game or within the ordinary high water mark of a creek, the City shall obtain a Streambed Alteration Agreement as required by the California Department of Fish and Game, and implement any required mitigation.

Mitigation Measure B–3: Preliminary Survey for Special-status Animal Species. During the preliminary engineering and environmental review phase of each Class I or Class II bikeway project that involves work within open space or undeveloped property or may otherwise disturb special-status animal species, a survey for the presence of and/or suitability of habitat to support special-status animal species shall be conducted by a qualified biologist in accordance with the following:

8. If no special-status animals are documented during the survey and the survey concludes that suitable habitat for special-status animal species is not present, then no further mitigation or agency consultation is required.
9. If special-status animals are documented during the survey or the survey concludes that suitable habitat for special-status animal species is present, the City shall as feasible design the trail to minimize or avoid impacts to the habitat of the special-status animal(s), including any existing burrows of western burrowing owls. In addition, the City shall conduct pre-construction survey(s) as applicable for the documented species per Mitigation Measures B-4 through B-8.
10. If the survey determines that the project would impact annual grasslands suitable as Swainson's hawk foraging habitat, the City shall consult with California Department of Fish and Game to determine if any mitigation is required.

Mitigation Measure B–4: Pre-construction Survey for Swainson's Hawk. If project construction is proposed during the breeding season (March-August), a survey shall be conducted to identify active Swainson's Hawk nests. The survey shall be conducted by a qualified biologist no more than 30 days prior to the onset of construction in all suitable and appropriate habitats within ¼-mile of the project area. Depending on the results of the survey, the following actions may be taken:

1. If no active nests are identified, no further mitigation is required.
2. If an active Swainson's hawk nest(s) is identified, the City shall consult with the California Department of Fish and Game to determine appropriate actions such that construction activities do not result in nest abandonment or forced fledging. Actions may include establishing a buffer zone around the active nest or, if the tree containing the Swainson's hawk nest is proposed for removal, delaying removal of the tree until the young have fledged.

Mitigation Measure B-5: Pre-construction Survey for Other Raptors. If project construction is proposed during the raptor breeding season (March-August), a survey shall be conducted to identify active raptor nests. The survey shall be conducted by a qualified biologist no more than 30 days prior to the onset of construction in all suitable and appropriate habitats within 350 feet of the project area. Depending on the results of the survey, the following actions may be taken:

1. If no active nests are identified, no further mitigation is required.
2. If an active raptor nest (other than Swainson's hawk) is identified, the City shall either establish a 350-foot buffer around the nest and avoid removal of any tree with an active raptor nest until the young have fledged, or consult with the California Department of Fish and Game to determine other appropriate actions.

Mitigation Measure B-6: Pre-construction Survey for Western Burrowing Owls. If project construction is proposed within 250 feet of potential burrowing owl habitat, a survey shall be conducted to record western burrowing owl activity. The survey shall be conducted by a qualified biologist no more than 30 days prior to the onset of construction. Depending on the results of the survey, the following actions may be taken:

1. If no sign of owl activity is found, no further mitigation is required.
2. If western burrowing owls are nesting in the project area or within 250 feet of the project area, the City shall consult with the California Department of Fish and Game to determine appropriate mitigation. The nests shall be avoided by establishment of a buffer zone of up to 250 feet around the nest or as recommended by CDFG. During non-breeding season, passive relocation of owls may be considered. Additional mitigation may include creation of artificial burrows for displaced owls, and compensation for loss of occupied foraging and burrow habitat.

Mitigation Measure B-7: Pre-construction Survey for Migratory Birds. If project construction is proposed during the breeding season (February-August), a survey shall be conducted within 100 feet of the construction area to identify active nests of birds protected under the Migratory Bird Treaty Act. The survey shall be conducted by a qualified biologist no more than 30 days prior to the onset of construction. Depending on the results of the survey, the following actions may be taken:

1. If no active nests are identified, no further mitigation is required.
2. If an active nest is identified, the City shall establish a 100-foot buffer around the nest and avoid removal of any tree with an active nest until the young have fledged.

Mitigation Measure B-8: Pre-construction Survey for Western Pond Turtle, Western Spadefoot Toad and Pallid Bat. If project construction has the potential to impact habitat for western pond turtle, western spadefoot toad and/or pallid bat, a survey shall be conducted by a qualified biologist no more than 30 days prior to the onset of construction. Depending on the results of the survey, the following actions may be taken:

1. If no sign of western pond turtle, western spadefoot toad and/or pallid bat is found, no further mitigation is required.
2. If western pond turtle, western spadefoot toad and/or pallid bat are identified, the City shall consult with the California Department of Fish and Game to determine appropriate mitigation, which may include:
 - a. Moving northwest pond turtle(s) to a suitable aquatic habitat outside the construction area.
 - b. Avoiding active northwest pond turtle nests (containing either hatchlings or eggs) by establishing a buffer around the nest until hatchlings leave the nest.

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- c. Compliance with mitigation requirements for vernal pools (which provide aquatic breeding habitat for the western spadefoot toad) per Mitigation Measure B-1: Survey for Wetlands, including avoidance of vernal pools through the establishment of a buffer.
- d. Avoidance of structures serving as a roost for pallid bats until young have left the roost.

Cultural Resources

Would the project:

Environmental Issue	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historic resource as defined in Section 15064.5?		X		
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		X		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		
d) Disturb any human remains, including those interred outside of formal cemeteries?		X		

Environmental Setting

Prehistory - Roseville is near one of the most intensively studied cultural resource areas in California, the Sacramento-San Joaquin River Delta and adjoining section of the Sacramento and San Joaquin valleys. Archaeologists have recovered thousands of artifacts from numerous sites in the Delta region.

Prior to the 1849 gold rush to California, the indigenous Nisenan people, also known as the Southern Maidu, occupied the Foothill area of the Sierra Nevada, in which the City of Roseville is located. The Nisenan occupied the Sacramento Valley from Sacramento north to the Yuba City/Marysville area.

The Foothill Nisenan occupied land from the Middle Fork Consumnes River on the south to the South Fork Feather River in the north, and from the foothills to the Sierra crest. The Foothill Nisenan lived in small to mid-size settlements that varied according to topography, but were generally located on the ridges that separate streams. They were primarily hunter-gatherers who utilized the diverse resources of the area to subsist, harvesting and storing food as dictated by the seasons.

History - The discovery of gold along the American River and the subsequent influx of miners and settlers created numerous settlements in the project region. The Gold Rush brought more than 10,000 people to Placer County during the 1850's and 1860's. Gold was mined along Secret Ravine (a portion of which is in Roseville) and Auburn Ravine.

As mining activities decreased in the latter stages of the 19th century, agriculture became the dominant use of the area. Following the mining boom, many former prospectors settled in these communities and returned to the more familiar livelihoods of ranching and farming.

Roseville became established as a railroad town with the extension of the California Central and Central Pacific lines in the early 1860's. and local center of commerce. Roseville had slow but steady growth in population and business through the end of the 19th century. The surrounding areas were used for livestock, orchards, vineyards and agriculture. When Southern Pacific Railroad moved its railyard from Rocklin to Roseville in 1906, Roseville was established as the primary business center of Placer County.

Local Cultural Resources – Sites identified in the Roseville area range from major village with mortar stations and recognizable midden, and surface artifacts. For example, a 1963 study by Palumbo documented rich deposits of ancient villages along Dry Creek, Strap and Miners Ravines and Linda Creek, dating to as early as 500 B.C. Roseville is also known to have been home to the Pit chi ku (or Pichiku) village, which may have been a permanent settlement and was identified as a “major village”. There are also recorded remains from a Chinese labor settlement associated with the Spring Valley Ranch headquarters (EIP Associates and R.C. Fuller Associates 1990).

Additionally, cultural resource sites have been identified in the following general areas:

- North Central Roseville Specific Plan (EIP Associates and R.C. Fuller Associates 1990)
- Stoneridge Specific Plan (Jones & Stokes Associates 2002)
- Highland Reserve North Specific Plan (Dames & Moore 1996)
- Foothills Business Park (EIP Associates, 2000)
- North Roseville Specific Plan (EIP Associates, 2000)

Regulatory Setting

The regulations with which a project must to comply regarding cultural resources are largely dependent on specific project alignments, areas that may affected, and the sponsoring and/or funding agencies. The following discussion identifies general guidelines for complying with CEQA and with Section 106 of the National Historic Preservation Act (NHPA). Specific compliance measures ultimately will be defined in consultation with the parties involved with future, site-specific projects.

Federal - Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies or state and local agency projects using federal money to take into account the effect of the undertaking on historic properties. Section 106 compliance may be required on individual bikeway projects proposed under the BMP update if federal funding (such as a grant) is being sought or if a federal permit is required.

State – CEQA requires public agencies to assess the effects of projects on cultural resources. The State CEQA Guidelines define a significant historical resource as “a resource listed or eligible for listing on the California Register of Historical Resources” [CRHR] (Pub. Res. Code Section 5024.1). CEQA requires that, if a project would result in adverse effects on cultural resources, alternative plans or mitigation measures must be considered; however, only significant cultural resources need to be addressed.

Local - The General Plan Open Space and Conservation Element address cultural resource management: Policy OD-3 states: “Subject to approval by the appropriate Federal, State and local agencies, artifacts which are discovered and subsequently determined to be removable, shall be offered for dedication to the Maidu Park Native American Interpretive Center.” The City’s Design/Construction Standards includes standards that are applied if an archeological resource is discovered during construction.

Impact Analysis

- a) Cause a substantial adverse change in the significance of a historic resource as defined in Section 15064.5?*
- b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?*
- c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*
- d) Disturb any human remains, including those interred outside of formal cemeteries?*

Cultural resources include historic and archaeological objects, structures, records, and sites which are associated with past human activities. Per Section 15064.5 of the CEQA Guidelines, a substantial adverse change in the significance of a historical resource means the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be materially impaired.

Proposed Class III bike routes and most proposed Class II bike lanes will be implemented on existing roadways and will not involve construction activities that would disturb the earth or structures. Some Class II bike lane projects will involve road widening and associated earthwork. Nearly all Class I trail projects will involve grading activities, primarily within open space.

The earthwork activities associated with Class I and II bikeway projects has the potential to damage or destroy historical, archaeological and/or paleontological resources. Class II bike lanes may be constructed in association with and as part of roadway widening projects or new street construction. In those cases, any required cultural resources investigation would be conducted during the environmental process for the roadway project. The potential for impact is higher in open space areas that have not been previously developed, infill areas where prior cultural resources inventories have not been completed, and in areas where prior cultural resource inventories have identified historic, archaeological and/or paleontological resources as noted in the setting. The impact to cultural resources is considered **potentially significant**.

Mitigation Measures CR-1: Cultural Resources Investigation and CR-2: Work Stoppage and Notification would reduce the potential impacts related to cultural resources to a less than significant level.

Mitigation Measures

Mitigation Measure CR-1: Cultural Resources Investigation. For each Class I bike trail project within open space and Class II bike lane projects involving roadway widening adjacent to open space, the City shall conduct a Cultural Resources Investigation as follows:

1. City staff shall review prior cultural resource inventories, if any, for the project area.
2. If current (completed no more than 10 years before the anticipated beginning of construction) cultural resource inventory(ies) indicates that there are no known cultural resources present within the project area, then no further investigation is necessary.
3. If there is no prior cultural resources inventory for the project area or if the most recent cultural resources inventory was completed more than 10 years before the anticipated beginning of construction, the City shall hire a qualified cultural resources specialist for further investigation as follows:
 - a. Conduct a record search for previously identified cultural resources and previously conducted cultural resources investigations for the project area. The record search shall include contacts with: The appropriate information center of the California Historical Resources Information System; the Native American Heritage Commission (NAHC) for a Sacred Lands File Check and a list of appropriate Native American contacts in the local area; and representatives of local Native American Groups.
 - b. If determined necessary by the records search, conduct an on-site cultural resources survey.
 - c. Prepare a report with findings and recommended mitigation measures prepared, as necessary, in consultation with the City, the State Historic Preservation Office and the NAHC
4. If the cultural resources inventory for a project finds that cultural resources are present within the project area, the City shall, if feasible, design the path to avoid the cultural resource. If it is not feasible to avoid the cultural resource, the City shall follow the recommendations of the cultural resources inventory and/or a qualified cultural resources specialist to provide recommendations for disposition of the cultural resource.

Mitigation Measure CR-2: Work stoppage and notification. If evidence of cultural resources such as chipped or ground stone, historic debris, building foundations or human bone is discovered during ground-disturbing construction activities, the contractor shall immediately halt work within 100 feet of the find and notify the Roseville Community Development Department. A qualified cultural resources specialist shall assess the significance of the find and if necessary develop mitigation/treatment measures in consultation with appropriate agencies.

Geology and Soils

Would the project:

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

Environmental Setting

Geology – The City of Roseville is characterized by flat and rolling terrain as well as rounded knolls and ridges separated by intermittent streams. The area slopes gently westward toward the Sacramento River. The primary watersheds that drain the area are Pleasant Grove Creek and its tributaries in northern Roseville and Dry Creek and its tributaries in southern Roseville. Geology in the area consists of transitional formations between alluvial deposits of the central valley and volcanic material of the Sierra Nevada (Dames & Moore 1991).

Soils – The Soil Survey of Placer County states that soils in the Roseville area are typically associated with stream terraces and alluvial bottoms. These soils are typically deep and well drained, have low permeability, low shrink-swell potential and low soil strength (US Department of Agriculture, Soil Conservation Service 1980).

Seismicity – As described in the Roseville 2020 General Plan EIR (City of Roseville 2004), there are no active faults located in the City of Roseville or Placer County. The Cleveland Hill Fault, located approximately 41 miles north of Roseville, is the nearest known active fault. The highest potential for ground shaking which could affect the plan area is from the Dunnigan Hills and Midland faults, both with unknown histories of activity, located approximately 13 and 19 miles from the City of Roseville. Ground shaking could also originate from seismic activity along the relatively distant Foothill or San Andreas fault systems, approximately 19 and 38 miles away from the City of Roseville.

Three inactive faults are located near Roseville: the Volcano Hill fault, the Linda Creek fault and one unnamed fault. The Volcano Hill fault is located northwest of Volcano Hill and extends northwesterly for approximately one mile starting just east of the City limits. The Linda Creek fault, the existence of which is disputed due to lack of recorded activity, is suspected to extend along a portion of Linda Creek through Roseville and a portion of Sacramento County. The unnamed fault extends in an east-west direction between Folsom Lake and the City of Rocklin. Portion of this unnamed fault are concealed and possibly connected to the Bear Mountain Fault near Folsom Lake (City of Roseville 2004).

The last seismic event recorded in the south Placer County area, measuring at least 4.0 on the Richter scale, occurred in 1908 on a north-south fault line between Folsom and Auburn and on an east-west line between Placerville and Roseville. No significant seismic event has been recorded since that time within the vicinity of Roseville (City of Roseville 2004).

Regulatory Setting

Federal - No federal regulations relating to geologic resources are relevant to the project.

State – Roseville is not subject to the Alquist-Priolo Special Studies Zone Act because Roseville is not located within one of the designated special studies zones. As discussed in the Hydrology Section, grading for bikeway projects must comply with the requirements of the Regional Water Quality Control Board and National Pollutant Discharge Elimination System permit.

Local - The General Plan Safety Element includes policies intended to address potential geology, soils and seismic impacts. These policies are implemented through the Building Permit process (for structures) and the Design/Construction standards.

Impact Analysis

a.i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)

There are no known active earthquake faults or Alquist Priolo fault zones in or adjacent to the City of Roseville (California Geological Survey 2004). Given this information, bikeway projects would not be subject to fault rupture and **no impact** would occur.

a.ii) Strong seismic ground shaking?

As noted in the environmental setting section, the City of Roseville is not in an area where strong seismic ground shaking is anticipated. In addition, the City's adopted building codes and Design/Construction standards provide minimum standards for bikeway design. Proposed bikeway projects would be required

to comply with the applicable seismic safety design requirements. The impact is **less than significant**.

a.iii) Seismic-related ground failure, including liquefaction?

As noted above, seismic hazards in the City of Roseville are not substantial. Roseville's Cometa-Ramona Sandy Loam soils are deep and well-drained, have low permeability and low shrink-swell potential (US Department of Agriculture 1980). The General Plan Safety Element states that geographic conditions, soil conditions and surface terrain combine to minimize risk of major damage from landslides, subsidence or other geologic hazards resulting from seismic activity and related natural forces. The General Plan further states that based on project-specific analysis and past experience liquefaction has not been a significant problem in Roseville (City of Roseville 2004). Therefore, proposed bikeway projects are not expected to be subject to ground failure or liquefaction, and the impact is **less than significant**.

a.iv) Landslides?

The three factors that characterize landslide hazard areas include significant slope, weak soils, and heavy rains. With the exception of the south and east areas of the City, the majority of the City of Roseville has low topographic relief. In the south and east areas, steep slopes are found near creeks and ravines. The General Plan states that, per the Landslide Hazard Identification Program directed by the State Geologist, Roseville is not identified as an areas prone to landslide hazards. In addition, bikeway projects will be constructed in accordance with the City's Design/Construction standards, which require preparation of site-specific soils analysis. As a result, the potential for landslides is considered **less than significant**.

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

Construction and grading activities associated with bikeway construction projects will result in the removal of vegetative cover and exposure of soils to wind and rain, the common mechanisms by which soil erosion occurs. The City's Design/Construction Standards require implementation of best practices for sediment and erosion control. The Flood Damage Prevention Ordinance further regulates potential erosion impacts within floodplains. The City's adopted Findings for Mitigating Policies and Standards include a determination that the requirements Design/Construction Standards and Flood Damage Prevention Ordinance would mitigate this potential impact to a **less than significant** level.

c) Be located in a geological unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Roseville's low seismic hazards, soil conditions, and flat topography combine to minimize the risk of major damage associated with landslides, subsidence, liquefaction and other geologic hazards (City of Roseville 2004). As a result, there is **no impact**.

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

Soils in the City of Roseville are often those associated with stream terraces and alluvial bottoms. These soils are typically deep and well drained, have low permeability , low shrink-swell potential and low soil strength (US Department of Agriculture 1980). The City Design/Construction Standards require site-specific soils study(ies) for bike path construction. These studies would address trail stability relative to soil type and anticipated trail use, and would include recommendations to ensure that the structural design of bikeway projects is sufficient. Compliance with this requirement would ensure that the potential impacts related to expansive soil are addressed. Therefore, this impact is **less than significant**.

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

Restroom facilities for bikeway projects are likely to be installed at park sites and will be reviewed during the park construction process. There is a possibility that stand-alone restrooms could be installed. In those instances, the restrooms will be connected to the City of Roseville wastewater system, and septic tanks will not be used. There is **no impact**.

Mitigation Measures

None required.

Hazards and Hazardous Materials

Would the project:

Environmental Issue	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?		X		
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing in the project area?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	

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

As with other aspects of everyday urban life, there is a potential for the presence of hazardous materials or other safety hazards in and around bikeways. The following describe some of the conditions under which hazardous materials may be located.

Existing Businesses – Manufacturing facilities and gasoline stations are examples of the types of businesses that use hazardous materials in their business operations. These businesses must comply with federal, state and local laws governing hazardous materials use, storage inventory and reporting, transportation and disposal. To ensure compliance with applicable regulations, the Roseville Fire Department inspects all facilities that use hazardous materials.

Site Assessments – The City of Roseville typically conducts a preliminary site assessment (PSA) for new specific plans and for other property acquisitions. PSAs evaluate the likelihood of whether or not hazards are present on a site or on properties adjacent to a site. For example, the PSA for the Foothills Business Park, which includes a proposed Class I bike trail, found that a pipe enters the boundaries of the site from the Sunset Industrial Septic ponds operated by Placer County until 1986. The PSA noted that formaldehyde was detected in monitoring wells and that soil along Pleasant Grove Creek could be contaminated by outflow from the pipe. This may warrant further investigation during trail construction. Another example is the Union Pacific Railroad yard, through which several trail crossings are planned. The UPRR yard is listed on the National Priorities List under the Comprehensive Environmental Response, Compensation and Liability Act and identified as requiring study and cleanup under the Resource Conservation and Recovery Act (RCRA). There are other PSAs that evaluate lands on which bikeway projects are proposed. This document will not specifically reference PSAs, but calls for a review of them as future bikeway projects are evaluated.

Hazardous Waste Treatment, Storage, and Disposal Facilities – There are no designated hazardous waste treatment, storage or disposal facilities in Roseville or Placer County.

High-voltage Electric Power Lines – Bikeways are proposed for construction in several electrical transmission corridors throughout the City. High voltage power lines generate electric and magnetic fields (EMFs). Electric field intensity (strength) depends on voltage applied to the line, the distance from the line, and other factors. Electric field intensity decreases rapidly with increasing distance from a transmission line. In addition, electric fields are effectively shielded by larger objects such as trees and houses. Magnetic fields do not decrease as rapidly as electric fields with increasing distance from the source, and they are generally unaffected by large objects.

The effect of EMFs on human health has been the focus of scientific controversy. Experts are uncertain whether there is a danger and what constitutes a safe level of exposure if a danger exists. Some preliminary studies raised the possibility of hormonal and nervous system changes, but whether these changes pose potential health risks to humans is unclear. Suspected health risks include the promotion of cancer, birth defects, other reproductive and developmental abnormalities, and neurological effects such as chronic depression. Some, but not all, studies have found a statistical correlation between EMFs and health effects. However, no study has established a causal relationship between EMFs and health effects. In fact, a California Public Utilities Commission policy report issued in 1993 concluded that studies did not show a relationship between EMFs and health effects. The California Energy Commission

has not established regulatory limits on the allowable strength of EMFs from high voltage transmission lines, but the agency requires utilities to adopt no or low cost measures to avoid increasing EMF exposure when economically feasible.

In addition, The Safety Element of Roseville 2010 General Plan contains the following policies relating to hazard and hazardous materials:

- Policy SG-1. Ensure implementation of the Electric Department's policy of "prudent action" with respect to EMF issues.
- Policy SG-2. Limit public use within electrical power line easements to parking and low-density recreational activities such as undeveloped nature areas, bike or jogging paths.

Regulatory Setting

Federal – Federal agencies that regulate hazardous materials are noted below:

- Environmental Protection Agency (EPA) – EPA administers the Resource Conservation and Recovery Act (RCRA), which regulates the generation, transportation, treatment, storage and disposal of hazardous waste.
- Occupational Safety and Health Administration (OSHA) – OSHA is responsible for ensuring worker safety, including operations that may use, handle or dispose of hazardous materials.

State – State agencies that regulate hazardous materials are noted below:

- **California Environmental Protection Agency (Cal-EPA)** – Cal-EPA and the Office of Emergency Services (OES) establish regulations governing the use of hazardous materials. Within Cal-EPA, the Department of Toxic Substances Control (DTSC) has primary regulatory responsibility. Enforcement of regulations has been delegated to local jurisdictions, which enter into agreements with DTSC.
- **California State Water Resources Control Board and Regional Water Quality Control Board (RWQCB)** – These agencies regulate surface water and groundwater quality according to the Porter-Cologne Water Quality Act, the Toxic Pits Cleanup Act, the Underground Tank Law and Clean Water Act.

Local - The local agencies that regulate hazardous materials are noted below:

- **Placer County** - The Placer County Department of Health and Medical Services, Environmental Health Division regulates the use, storage, and disposal of hazardous materials in Placer County by issuing permits, monitoring regulatory compliance, performing inspections, investigating complaints, and engaging in other regulatory activities.

The 1989 hazardous waste management plan (HWMP) for Placer County includes information on current and projected hazardous waste generation in the county and an inventory of contaminated sites. The HWMP has not approved by the state, and the City has not taken action on this plan.

Other county offices that manage some aspect of hazardous materials activities are the Office of Emergency Services, which maintains an inventory of hazardous materials and provides emergency planning and response services; The Agricultural Commissioner's office, which regulates, monitors, and enforces application of pesticides; and the Placer County APCD, which regulates, monitors, and enforces regulations dealing with air quality.

- **City of Roseville** – The Roseville City Council adopted the Roseville Multi-Hazard Mitigation Plan on July 20, 2005. The plan is intended to provide long-term planning to reduce the impacts of future disasters. Other City activities related to hazards include:

- ❖ The Roseville Fire Department has developed a hazardous materials emergency response plan for the city. The plan describes organizational and operational responsibilities, including cleanup and decontamination procedures, in the event of a hazardous materials emergency.
- ❖ The Roseville Fire Department inspects and monitors facilities that are required to comply with federal and state regulations concerning inventory and reporting of hazardous materials.
- ❖ Per Section 31303 of the California Vehicle Code and DOT, the City regulates the transportation of hazardous materials.

Impact Analysis

a) and b) Creation of a significant hazard to the public or environment.

Hazardous materials such as gasoline, diesel fuel, asphalt and other petroleum products may be used during the construction of Class I bike trails and Class II bike lanes. Construction activities of the typical project would last no longer than one construction season. However, the specific types and amounts of hazardous materials that would be onsite or transported for construction of a project cannot be determined at this time. During bike path maintenance, weed control chemicals and asphalt for patching/crack sealing may also be used by City employees or contractors.

Construction workers, nearby persons or residents, and the surrounding environment could be exposed to hazards associated with accidental releases of the materials, whether through improper handling, unsound disposal methods, transportation accidents, or fires, explosions or other emergencies. Exposure could also result from unearthing existing hazardous materials on a site.

Contractors would be required to comply with applicable federal, state and local regulations for handling hazardous material. The requirements include reporting releases in accordance with the City of Roseville Spill Reporting Fire Prevention Standard, which is required by the City's Design/Construction standards. Further, the City's hazardous material emergency response plan and general emergency response plan would reduce the potential for harm from accidental release. The implementation of these uniformly applied standards would reduce this impact to a **less than significant** level.

Several high-voltage electrical transmission corridors have been proposed as locations for Class I bikeway routes. As discussed in "Environmental Setting" above, a relationship between EMF exposure and health effects has been studied but not been scientifically substantiated. Although data are insufficient to determine the potential effects of EMF's the City has implemented general plan policies SG-1 and SG-2 to limit the potential impacts of EMFs. The City has determined that transmission corridors are an acceptable location for low-intensity recreational uses such as bikeways. Therefore, in the absence of more conclusive information and with implementation of existing City policies, this impact is considered **less than significant**.

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

Several of the proposed bikeway projects will be within ¼-mile of a school(s). The construction and maintenance of bikeways is similar in nature to other activities regularly occurring adjacent to or within school grounds. The construction of bikeways does not pose an undue risk to schools and students. The implementation of federal, state and local regulations for handling, use and disposal of hazardous materials will reduce the potential for impact to a **less than significant** level.

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

Government Code Section 65962.5 requires the Department of Toxic Substances Control to compile and regularly update a list of hazardous materials sites throughout the state. This list identifies locations where extensive investigation and/or cleanup actions are planned or have been completed. This information is distributed to local agencies, including the City of Roseville. There are properties within the City of Roseville that are identified as hazardous materials sites. Construction of bikeway projects on listed sites could expose construction workers or bikeway users to hazards. This is a **potentially significant impact**. Implementation of Mitigation Measure HA-1: Site Assessments for Hazardous Materials would reduce this impact to a less than significant level.

e) through f) Airport Related Risks

There are no airports within or in close proximity to Roseville. There are no airport land use plans that affect the City of Roseville or otherwise limit activities within the City of Roseville. There are two private helistop facilities within Roseville at the Sutter and Kaiser Hospitals. Construction activities would not impact any airport or the helistop facilities, and the implementation of the BMP would not create a significant risk to path users, construction workers or maintenance workers. There is **no impact**.

g) Emergency Response Risks

Bikeway construction may involve the closure of traffic lanes during Class II bike lane construction and potentially when Class I bike trails intersect with streets. The Design/Construction Standards require that roadwork requiring traffic lane closure be approved by the City of Roseville Public Works Department. Per the Design/Construction Standards, the Public Works Department will implement traffic control measures in accordance with local, state and federal requirements. These regulations further require that the Police and Fire Departments, ambulance services, schools and bus systems receive 48 hours notice in advance of road closures. The City's adopted Findings for Mitigating Policies and Standards include a determination that the Design/Construction Standards would mitigate this potential impact to a **less than significant** level. It should also be noted that the construction of Class I bike paths within open space provides enhanced opportunities for Police and Fire Department personnel to respond to emergencies that may take place within open space areas.

h) Wildfire Risks

Class I bike paths are planned through open space areas where there is a risk of wildfire. The risk is greatest in the dry summer months when drought conditions and dying trees and vegetation create the type of situation where wildfires can start. Bike path construction has the potential to increase the risk of wildfires by introducing construction vehicles and equipment such as power tools and torches that may create sparks and ignite dry vegetation. Further, the introduction of persons into open space, including construction and maintenance workers and bike path users, also has the potential to increase the risk of fire.

The City of Roseville has adopted several policies that are intended to reduce the risk of wildfires within open space and to reduce the potential for harm to people or structures resulting from wildfires. These include:

- Newer open space areas include operations & management plans that address vegetation control. Further, the City's Multi-hazard Mitigation Plan identifies risk reduction measures for wildfires, including clearing potential fuels, implementing best management practices on public lands, and utilizing goat grazing in City open space and preserve areas.
- The Parks & Recreation Department and Public Works Department actively control weeds adjacent to bike trails in all open space areas, reducing the potential for accidental fires started by trail users or maintenance worker vehicles.
- The Fire Department actively promotes the creation of fire breaks between open space areas and adjoining developed properties.

- Where feasible, all Class I bike trails are designed to meet the Fire Department's guidelines for trail construction. The guidelines facilitate Fire Department access to open space and enhance their ability to respond to wildfires.

These measures would limit exposure to wildland fires from bikeway operation such that bikeway use is not expected to expose people or structures to significant hazards related to wildland fires. Therefore, the impact from operation and use of bikeways would be less than significant. However, these measures do not reduce the potential for construction activities to cause wildfires, and that remains a **potentially significant impact**. Implementation of Mitigation Measures HA-2: Clearing of Flammable Materials and HA-3: Use of Spark Arresters would reduce the potential impact to a less than significant level.

Mitigation Measures

Mitigation Measure HA-1: Site Assessments for Hazardous Materials. During the environmental review, engineering and/or right-of-way phase for each Class I bikeway project and for those Class II bikeway projects involving roadway widening, the City shall conduct site assessment(s) for hazardous materials as follows:

- a) City staff shall review any existing and available Preliminary Site Assessments for the property and the list of hazardous materials sites maintained by the Fire Department. City staff shall also visually inspect the site for evidence of hazardous materials or nearby land uses which may indicate the use or disposal of hazardous materials.
- b) If the site is located on a hazardous material site list and is unremediated or if visual evidence or prior preliminary assessments indicate that hazardous materials may be present on the site, the City shall retain a qualified consultant to further evaluate the potential for hazardous material releases.
- c) If the site assessment(s) determine that the bikeway project is likely to result in a release of hazardous materials, the City shall either re-design the project to avoid the impact or prepare and implement a remediation plan in accordance with local, state and federal standards.

Mitigation Measure HA-2: Clearing of Flammable Materials. If dry vegetation or other fire fuels exist on or near staging areas, welding areas, or any other area on which equipment will be operated, contractors shall clear the immediate area of fire fuel prior to construction. To the extent feasible, areas subject to construction activities will be maintained free of fire fuel and debris during the course of construction. To avoid impacts to natural resources, areas to be cleared shall be identified with the assistance of a qualified biologist.

Mitigation Measure HA-3: Use of Spark Arresters. Contractors shall ensure that vehicles and all equipment (heavy equipment and hand-held equipment) that typically include a spark arrester are equipped with a spark arrester in good working condition during the duration of construction.

Hydrology and Water Quality

Would the Project:

Environmental Issue	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?			X	
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?			X	
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?		X		
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted water?		X		
f) Otherwise substantially degrade water quality?			X	
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?		X		
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?		X		

Environmental Issue	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
j) Inundation by seiche, tsunami, or mudflow?				X

Environmental Setting

Roseville is located in Sacramento River Basin, which encompasses approximately 26,500 square miles and is bounded by the Sierra Nevada to the east, the Coast Ranges to the west, the Cascade Range and Trinity Mountains to the north, and the Delta and central Sierra area to the south. The Sacramento River is the principal river in this basin. Its main tributaries are the Pit, Feather, Yuba, Bear, and American River to the east.

Watersheds – Roseville has two watershed systems. The Dry Creek watershed has a drainage area of approximately 101 square miles and includes the south and east areas of Roseville, virtually all of the Loomis Basin; portions of Rocklin and Sacramento; the rural communities of Elverta and Rio Linda; and the agricultural areas in southwest Placer County and northwest Sacramento County. The system has year-round flows in its major watercourses. Tributaries to Dry Creek include Cirby Creek, Linda Creek, Miners Ravine, Secret Ravine, Strap Ravine, Antelope Creek and False Ravine. Dry Creek flows west until it joins the Natomas East Main Drainage Canal, which ultimately drains to the Sacramento River.

The Pleasant Grove Creek watershed West drains an area of approximately 16 square miles. Pleasant Grove Creek originate in the low foothills of Placer County, primarily within the city limits of Rocklin and Roseville. The creek flows through the north and west areas of Roseville and then into Pleasant Grove Creek Canal, approximately 7 miles beyond the city limit. The canal flows into Cross Canal in Sutter County and then into the Sacramento River just south of its confluence with the Feather River, approximately 14 miles west of Roseville.

Drainage - Drainage depends in large part on climatic conditions in a given area. These conditions, along with soil type and development type, determine the amount of runoff that flows into area waterways. In Roseville, 90% of all precipitation falls between November and April. Average annual precipitation is 22 inches but can range from 5 inches in dry years to 36 inches in extremely wet years.

Runoff characteristics of a particular area are determined by topography, ground slope, vegetative cover, soil types, and the amount of impermeable surface area. Much of Roseville is covered with imperious surfaces typical of urban development. The underdeveloped areas typically have soils with low infiltration rates except in the vicinity of creeks and wetlands. Except, terrain on the east side of Roseville is more varied, with steep slopes adjacent to Miners, False and Secret Ravines.

Flooding - In the Roseville area, flooding is primarily associated with stormwater runoff that exceeds the capacity of stream channels and drainage facilities. Flooding has been reported along Dry, Antelope, Cirby, and Linda Creeks since the 1930s. Recent large storms in February 1986, January 1995, and January 1997 caused widespread flooding and property damage along Dry Creek in Roseville. Roseville has a flood alert and early warning system to monitor streamflows and precipitation through a network of computer-linked sensors located in stream channels. When water levels reach critical stages, measures are implemented to control flooding, ensure public safety, and minimize damage; these measures include portable dikes, traffic diversions, and flood-warning broadcasts. (EIP Associates 1997b.) The City has taken pro-active efforts to minimize the potential for flood damage. These actions have helped Roseville become the first and only community in the nation to receive the Federal Emergency Management Agency's (FEMA's) Community Rating System (CRS) highest rating of Class #1.

Surface Water Quality - Surface water resources in urbanized areas typically contain higher levels of fertilizers and pesticides. Typical constituents of runoff from pastureland include nitrogen, phosphorus, and coliform bacteria. Impervious surfaces associated with urban development results in runoff that carries pollutants in varying concentration depending on surrounding land uses, elapsed time since the last precipitation event, storm intensity, and the volume of runoff. The pollutant concentration of urban runoff is typically greatest during the first major rainfall after the dry season. Oil, grease, heavy metals, sediment, pesticide residues, and fecal coliform bacteria from roadways, parking lots, rooftops, and other impermeable surfaces are the primary pollutants in urban runoff. This runoff is commonly deposited in natural or constructed waterways next to paved surfaces and other drains into area waterways.

Groundwater - Roseville and portions of Sacramento and Sutter Counties are situated over the north-central portion of the Central Valley Groundwater Basin. This aquifer is a system of basins extending from Red Bluff to Bakersfield and is estimated to contain 114 million acre-feet of water. Of this, an average of 2 million acre-feet is pumped annually for agricultural irrigation and domestic and industrial uses.

Groundwater basins are recharged naturally by the infiltration of streamflows that originate in nearby mountains areas and by deep percolation of precipitation. Groundwater recharge is limited by the relatively impermeable soils that lie under much of Roseville. Recharge in the Placer Counter and Bear River recharge sub-areas is calculated to be approximately 5% of the total recharge in the Sacramento Valley groundwater basin under natural conditions. Thus, the Roseville area is not considered a significant recharge source in the context of regional groundwater hydrology (EIP Associates 1997a.)

Pursuant to the California Groundwater Management Act (AB 3030 and SB 1938), the City adopted the Western Placer County Groundwater Management Plan (GMP) in July 2007. The overall goal of the GMP is to maintain the quality and ensure the long-term availability of shared groundwater resources in Western Placer County to meet backup, emergency, and peak demands without adversely affecting other groundwater uses within the GMP area.

The City of Roseville has also initiated an Aquifer Storage and Recovery (ASR) program. This is a process where water is injected to a groundwater aquifer via a water well, then recovered through pumping water out of the aquifer. ASR wells are used to store large amounts of water for future use. In 2006, the City of Roseville injected more than 250 million gallons (767 acre feet) of drinking water into an aquifer located under the area occupied in and around Leonard Duke Davis Park. Since July 17, 2007 this water has been extracted from the aquifer and delivered to customers in the service area containing the well.

Regulatory Setting

Federal and State- The 1987 amendments to the Clean Water Act (CWA) added Section 402(p), which requires the U.S. Environmental Protection Agency (EPA) to develop a comprehensive phased program to regulate storm water quality discharges under the National Pollutant Discharge Elimination System (NPDES) program. In November of 1990, Phase I of the NPDES program was issued addressing storm water discharges from municipal separate storm sewer systems (MS4s) serving populations over 100,000 and industrial activities including discharges from construction activities disturbing five acres or more. EPA has delegated implementation of the NPDES program in California to State Water Resources Control Board (SWRCB.)

The SWRCB created a general stormwater permit that applies to all MS4s in California. This permit is called the Waste Discharge Requirements for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems or the General Permit. Mimicking Federal requirements, this permit required each MS4 to develop a Stormwater Management Program (SWMP) that outlines six minimum control measures that each MS4 must implement to the technology-based standard of "maximum extent practicable". These measures are as follows:

1. Public Education - inform the public, businesses and industry about stormwater, the impacts of stormwater pollution on local waterways
2. Public Involvement - provide the community with opportunities to get involved in the stormwater program
3. Illicit Discharge Detection and Elimination - identify and eliminate illicit stormwater discharges and connections
4. Construction Stormwater Runoff - reduce pollutants in stormwater runoff and eliminate non-stormwater discharges from construction activities
5. New Development and Redevelopment - lessen the long-term impacts of stormwater discharges from urban development and redevelopment
6. Municipal Operations - implement good housekeeping measure to reduce pollutants from municipal activities

In compliance with State requirements, Roseville drafted a Storm Water Management Program (SWMP). The Central Valley Regional Water Quality Control Board (Region 5) approved the SWMP and granted permit coverage in July 2004. The City is now in the implementation phase of the program.

General construction activity stormwater discharge permits are required by SWRCB, under its NPDES authority, for construction activities that involve disturbing 1 or more acres. Permit applicants are required to prepare, and retain at the construction site, a Storm Water Pollution Prevention Plan (SWPPP) that describe the site, erosion and sediment controls, means of waste disposal, compliance with approved local plans, maintenance responsibilities, and non-stormwater management. SWRCB's California Storm Water Best Management Practices Handbook presents specific guidance on selecting best management practices, used in preparing a SWPPP, for reducing pollutants in stormwater.

The United States Geologic Service (USGS) provides geologic, topographic, and hydrologic information that contributes to the management of water resources. USGS routinely collects data to determine quantity, quality, and use of surface water and ground water; researches hydraulics and hydrology; and coordinates federal efforts to collect water data.

The Federal Emergency Management Agency (FEMA) oversees the delineation of flood zones and provides disaster assistance. The agency manages the National Flood Insurance Program, which enables property owners in designated flood zones to purchase flood insurance. Flood zones are mapped on Flood Insurance Rate Maps that show the expected frequency and severity of flooding by area.

Local - The Placer County Flood Control District (PCFCD) develops regional strategies for flood control management in Placer County. The district comprises several municipalities, including Roseville, Rocklin, and Lincoln. Drainage designs and practices must conform to requirements set forth in PCFCD's Storm Water Management Manual.

The City has the authority, through its Floodplain Management Ordinance and general plan policies, to restrict the placement of fill in floodplains and floodways in its jurisdiction. Channels and tributaries outside the 100-year floodplain may be channelized or modified, general through the use of piping and where the 10-year storm event's floodflow is no more than 200 cubic feet per seconds (cfs).

The City has assessed an impact fee for all new developments within the Dry Creek and Pleasant Grove Creek watersheds. The fee is based on an incremental increase in runoff volume coming from each proposed development and is used to alleviate potential drainage problems associated with these creeks within and downstream of Roseville. Regional flood control projects will be implemented when sufficient fees have been collected. Bikeway projects are not subject to the fee, but are included in buildout projections and are mitigated through impact fees collected from other development projects.

Impact Analysis

- a) *Violate any water quality standards or waste discharge requirements?*
- f) *Otherwise substantially degrade water quality?*

Implementation of the proposed BMP update would result in grading and paving approximately 28 miles of new Class I bikeways and 27 miles of new Class II bikeways. Open space uses are not expected to contribute high levels of urban contaminants to runoff because these uses would remain relatively undeveloped. The construction and operation of Class I and II bikeways would not add substantial volumes of urban contaminants to runoff because bicycles contribute only minimally to this problem.

Activities related to construction of Class I and II bikeways could include grading and excavation. These and other construction activities have the potential to degrade water quality by increasing erosion and sedimentation. This in turn has the potential to impact water quality standards and waste discharge requirements. The Design/Construction Standards require implementation of best practices for sediment and erosion control. The City's adopted Findings for Mitigating Policies and Standards include a determination that the requirements Design/Construction Standards would mitigate this potential impact to a **less than significant** level.

- b) *Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?*

Groundwater supply is partially dependent on recharge by rainwater that percolates through permeable surfaces. When impermeable surfaces such as roads and bike trails are constructed, groundwater recharge can be reduced. In many areas of Roseville, soils are relatively impermeable or underlain by hardpan, which limits infiltration and groundwater recharge. Areas of high groundwater recharge potential, primarily along stream channels, have been designated for open space and park uses in part to facilitate recharge potential. Constructing bikeways in these areas would reduce by a small amount the area available for recharge.

Although the reduction in the area available for recharge has not been quantified, recharge would not be substantially affected by bikeway construction. Existing soil conditions throughout the area already limit recharge potential, and the area paved for bikeway construction would be a small portion of the total surface area dedicated to open space and available for recharge. In addition, the amount of recharge contributed to the groundwater aquifer by the entire Roseville area is relatively minimal compared to that contributed by the Sacramento Valley groundwater basin overall. Therefore, this impact is considered **less than significant**.

- c) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?*

Construction of Class I bikeways could involve grading along creek banks and in open space areas, which may alter drainage patterns locally. The area to be graded, in most cases, would be minimal; most trails would be 14 feet wide and project-level design of trail contours is expected to minimize the need for extensive grading. The City's Design/Construction Standards require implementation of best practices for sediment and erosion control. The Flood Damage Prevention Ordinance further regulates potential erosion impacts within floodplains. The City's adopted Findings for Mitigating Policies and Standards include a determination that the requirements Design/Construction Standards and Flood Damage Prevention Ordinance would mitigate this potential impact to a **less than significant** level.

- d) *Substantially alter existing drainage or increase runoff resulting in flooding?*

- e) *Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems?*
- h) *Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?*
- i) *Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?*

Constructing Class I bikeways through open space areas and along creeks would increase the amount of impervious surfaces. Assuming that Class I bikeways conform to City standards for minimum width, 33.9 acres of open space would be paved along approximately 28 miles of trails. Constructing 27 miles of Class II bikeways could also result in an increase of 26.2 acres of impervious surfaces. For new development areas such as the WRSP, drainage studies are completed and mitigation is provided to address increased runoff from the project features, including bikeways. However, bikeways in infill areas and older development areas may not be included in prior drainage studies.

As increase in the amount of runoff from an area does not necessarily mean an increase in downstream flows. Generally, development in the lower portion of a watershed does not contribute to peak flows because runoff from these areas tends to pass downstream ahead of the largest concentration of runoff from the upstream watershed. The Roseville area already has substantial flooding issues. Constructing new bikeways would add to those issues; however, as stated earlier, bikeways are not subject to the mitigation fee but are included in buildout projections and are mitigated through the corresponding mitigation fee paid for other development projects. This impact is considered **potentially significant**. Implementation of Measure HY-1: Hydraulic Analysis and HY-2: Flood Impact Avoidance Measures would reduce this impact to a less-than-significant level.

Class I bikeways would be located primarily in open space areas and riparian corridors along creeks. Many of these bikeways may be located in the 100-year floodplain of these waterways. Bikeways typically include instructional signposts informing trail users of the potential for flooding. City crews also install signs informing users when a trail is closed due to flooding. Bikeway construction may also require the placement of rip-rap or other means of bank stabilization. These structures could obstruct the flow of water during flood events. Because this is a program-level document, it is not possible to determine which bikeway routes or which portion of routes could require structures that would affect flood flows or be located in the 100-year flood plain. This impact is considered **potentially significant**. Implementation of Mitigation Measures HY-1: Hydraulic Analysis and HY-2: Flood Impact Avoidance Measures would reduce this impact to a less-than-significant level.

- g) *Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;*

The Bicycle Master Plan will not result in the creation of any new housing units, and will not place any new or existing housing within a 100-year flood hazard area. There is **no impact**.

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

The Project site is not located in an area subject to hazards associated with seiche, tsunami, or mudflow. There is **no impact**.

Mitigation Measures

Mitigation Measure HY-1: Hydraulic Analysis. Conduct a site specific hydraulic analysis for Class I and II bikeways proposed in areas of high flood risk or erosion potential, and incorporate necessary changes to ensure that the final design minimizes stormwater runoff and water quality impacts. For individual bikeway projects in areas where the risk of flooding or erosion potential is high, the City shall obtain a site-specific hydraulic analysis of the proposed bikeway design to evaluate the effects of the bikeway on flooding and water quality. If results of the analysis indicated that adverse effects would be

substantial, changes to the bikeway design that would reduce those effects shall be recommended and where feasible, implemented.

Mitigation Measure HY-2: Flood Impact Avoidance Measures. Design and locate bikeways structures in 100-year floodplain areas so that no substantial increase in water surface elevation results from installation of such features. The City shall ensure that the structures associated with Class I bikeways, along with all other features associated with uses in parks and open space areas in the 100-year floodplain, are designed and located so that such features do not obstruct flood flows, create a public safety hazard, or result in any increase in water surface elevations onsite or downstream. Fences shall be sized, placed, and securely anchored to minimize the potential for floodwaters to flow toward unprotected areas or areas outside of the floodplain. Railings shall be designed to rotate parallel to stream flow during periods of elevated flows to minimize the potential for obstruction of flood flows. During the design phase for projects in flood-prone areas, hydrologic modeling shall be conducted to demonstrate that water surface elevations would not increase substantially following construction.

Land Use and Planning

Would the project:

Environmental Issue	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?			X	
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?			X	
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?		X		

Environmental Setting

Land uses in Roseville are primarily urban, with a mix of residential, commercial and light industrial. There are also parks and open space areas distributed throughout the City. There are no agricultural uses within the City, although there are agricultural uses in the surrounding areas of Placer County.

Regulatory Setting

Federal and State - No federal or state regulations apply to land use or planning in the context of the BMP Update.

Local - The City of Roseville establishes land use designations and policies through the General Plan, specific plans and the Zoning Ordinance. The General Plan Land Use Element is intended to designate the general distribution, location and extent of land uses in the City. The General Plan Land Use Element includes goals, policies and implementation measures that support this effort. Several of these policies support land use patterns that promote a variety of transportation modes, including bicycling. Implementation of the Bicycle Master Plan is also listed as one of the General Plan Land Use Element Implementation Measures. Further, bike trails are identified as a primary use for lands that are designated Open Space or Parks and Recreation.

The specific plans designate appropriate land uses for the particular land area that they address. Each specific plan also identifies roadways, bikeways, open space and parks and recreation facilities to be provided. This typically includes a proposed Bikeway Plan for the project area. The Bicycle Master Plan Update is in most instances consistent with the bikeway plans for the various specific plans. In several instances, however, the BMP Update may vary from the specific plans by adding or removing planned bikeways.

The Zoning Ordinance defines and establishes regulations for specific use types. Class I bike trails and accompanying parking areas and interpretive centers are included as part of the *Resource Related Recreation* use type. This use type is permitted or conditionally permitted in all zoning districts.

Impact Analysis

a) Physically divide an established community?

Implementation of the BMP update would result in construction of a system bikeways throughout the city. Class I bikeways would be constructed in open space areas and parks; Class II-III bikeways, which are on-street facilities, would be included on new or existing roadways. The purpose of these bikeways are to link various areas of the city of pedestrians and bicyclists and to provide an alternative mode of nonpolluting transportation. Although constructing bikeways would create linear travel corridors throughout the city, these corridors would provide linkages through, rather than divide, the community. This impact is considered **less than significant** and a benefit.

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?

Land use compatibility was already considered for most of the proposed facilities during the adoption of the General Plan, the various specific plans and the original Bicycle Master Plan. The 2008 Bicycle Master Plan Update proposes several new Class I bike trails that were not previously included within any of these documents. Examples include the trail within the NWRSP power line corridor (Segment 4a on Figure 2-3). The newly-designated Class I bike trails are proposed within open space and park parcels. As noted in the regulatory setting above, Class I bike trails are considered primary uses of open space areas and are principally permitted as within open space, parks and most other land uses as part of the *Resource Related Recreation* use type. Therefore, the designation of new bike trails within open space and parks and recreation areas will not result in a conflict with any adopted land use plan, policy or regulation. The bikeway projects would provide a recreational amenity and improve access to open spaces areas for local residents as recommended by the General Plan. This potential impact is **less than significant**.

There are also several proposed Class II and III bike routes that were not previously identified in the General Plan, the specific plans or the original Bicycle Master Plan. The newly-proposed on-street facilities will be located on existing roadways. These roadways were previously determined to be compatible with their surrounding land uses either through the General Plan, Specific Plan or Capital Improvement Project process. The addition of bike lanes and signs/stripping will not substantially alter the roadway as perceived by the adjacent land uses. For example, bike lane installation will not increase roadway capacity or noise. Further, roadway improvement projects, including bike lane construction, are a typical activity associated with roadways. This potential impact is **less than significant**.

Construction of the proposed bikeways would not conflict with or restrict use of abutting properties. However, adjacent landowners/residents may be concerned with loss of privacy that could result from construction and operation of bikeways. Adjacent landowners may also be concerned about the potential for increased incidence of vandalism or other illegal or illicit activities in open space areas. Privacy concerns of adjacent owners will be addressed after the final alignment of bikeways has been determined during the site-specific design phase for individual projects. However, analysis of privacy impact is not required under CEQA. The potential impacts related to vandalism and illegal/illicit activities are addressed in the Public Services and Utilities section.

The BMP Update includes the proposed adoption of an amendment to the Circulation Element of the General Plan. The General Plan Amendment includes several additional new goals and policies for the City bikeway program. These are:

- To increase the percentage of all trips made by bicycles in Roseville.
- Establish education, encouragement and enforcement programs that create a climate of acceptance for bike riding.
- Obtain the Bicycle Friendly Community Designation from the League of American Bicyclists.

The General Plan Amendment would also update the proposed bikeways map within the General Plan to reflect the BMP Update. The proposed amendments to the General Plan do not conflict with other City plans, policies or regulations. Therefore, the impact is **less than significant**.

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

There are no habitat conservation plans or natural community conservation plans within the City of Roseville. Some of the proposed Class I bike paths may be located within open space areas that are subject to Operations and Management (O&M) plans established for the express purpose of protecting and maintaining the open space areas. Often, as part of the Clean Water Act permitting process with the U.S. Army Corps of Engineers (Corps), O&M plans are established by preserve owners (either the City or private owners), subject to approval of the Corps. Typically, these plans include prescriptions for long-term management and maintenance of the preserve and a list of prohibited or restricted activities within the preserve. Bike paths not previously planned for may be prohibited by selected O&M plans. One such example is Segment 4a, a proposed 0.71 mile bike path in an open space preserve in Northwest Roseville. A bike segment that is proposed within a preserve that currently prohibits such a path would be a **potentially significant impact**. The implementation of Mitigation Measure LU-1: Agency Consultation will reduce this impact to a less than significant level.

Mitigation Measures

Mitigation Measure LU-1: Agency consultation. If a Class I bike path is proposed to be located within an area where such use is not currently allowed by an Operations and Management Plan or similar approved plan by a local, state, or federal agency, the City shall consult with the appropriate regulatory agency and follow all required agency measures to avoid, minimize, and/or mitigate for any bike path impacts to environmental resources.

Mineral Resources

Would the project:

Environmental Issue	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?			X	
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?			X	

Environmental Setting

Land uses in Roseville are primarily urban, with a mix of residential, commercial and light industrial. There are also parks and open space areas distributed throughout the City. There are no mineral extraction operations currently ongoing in Roseville.

Regulatory Setting

Federal – No federal regulations apply to land use or planning in the context of the BMP Update.

State - The California Division of Mines and Geology is responsible for the classification and designation of areas containing or potentially containing significant mineral resources. In accordance with California's Surface Mining and Reclamation Act of 1975, the Mineral Land Classification of Placer County classifies the land in Placer County according to "the presence, absence, or likely occurrence of significant mineral deposits in areas of the County subject to either urban expansion or other irreversible land uses incompatible with mining."

The Mineral Land Classification of Placer County (CDMG 1995) classifies the land throughout Placer County as Mineral Resource Zone 1 (MRZ-1), Mineral Resource Zone 2a (MRZ-2a), Mineral Resource Zone 2b (MRZ-2b), Mineral Resource Zone 3a (MRZ-3a), and Mineral Resource Zone 4 (MRZ-4). These Mineral Resource Zones are defined as follows:

- MRZ-1: Areas where available geologic information indicates there is little likelihood for the presence of significant mineral resources.
- MRZ-2a: Areas underlain by mineral deposits where geologic data indicate that significant measured or indicated resources are present.
- MRZ-2b: Areas underlain by mineral deposits where geologic information indicates that significant inferred resources are present.
- MRZ-3a: Areas containing known mineral occurrences of undetermined mineral resource significance.
- MRZ-4: Areas of no known mineral occurrences where geologic information does not rule out either the presence or absence of significant mineral resources.

All locations within the City of Roseville have been classified as MRZ-4, indicating undetermined potential for significant mineral resources.

Local –The Zoning Ordinance would regulate any proposals for mining. However, no mineral extraction currently exists, or is anticipated, in the City of Roseville.

Impact Analysis

a) and b) Impacts to Mineral Resources

There are no known significant mineral resources in Roseville. Even if there were, existing development patterns in Roseville have essentially precluded the extraction of potential mineral resources. No future mineral extraction is anticipated. However, implementation of the BMP would not preclude future extraction if important resources were discovered. The bikeway locations and features are expected to commit relatively small amounts of land to development. All proposed Class II and Class III bikeways would occur within or adjacent to existing roadways. The Class I bikeways are proposed within open space areas where mineral extraction would be prohibited. The project does not propose to excavate for mineral resources and the existing land uses surrounding potential mineral resources are incompatible with mining and excavation. Therefore, this project would result in a **less than significant** impact to mineral resources and extraction.

Mitigation Measures

None required.

Noise

Would the project result in:

Environmental Issue	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			X	
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X

Environmental Setting

Noise is typically defined as unwanted sound. When noise is either disturbing or annoying, whether by its pitch or loudness, it may be considered objectionable. Sound levels are calculated on the decibel (DB) scale, a logarithmic scale that indicates the relative amplitude of sound waves. Each 10dB increase in sound levels results in a 10-fold increase in sound intensity.

Maximum allowable noise levels are expressed in decibels (dB) using the L_{dn} and CNEL noise level descriptors. The L_{dn} is based on the average hourly sound level over a 24-hour period, with a +10 decibel weighting added to nighttime values (10:00 P.M. to 7:00 A.M.) because nighttime noise is perceived as being louder, and is more disruptive than daytime noise. The CNEL is also a sound level taken over a 24-hour period, except that an additional +5 decibel penalty is applied to evening (7:00 P.M. to 10:00 P.M.) values.

Factors that affect sound transmission include the following:

- **Insulation at the receptor:** The manner in which older homes in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dB with closed

windows and approximately 15 dB reductions when windows are open. The exterior-to-interior reduction of newer residential units is generally 30 dB or more.

- **Line of sight:** Barriers, such as topography, sound walls and other structures, between a noise source and recipient can provide varying degrees of noise attenuation, particularly when placed near the noise source.
- **Distance:** A reduction in noise level of roughly 6 decibels occurs with each doubling of distance from a noise source, depending on the hardness of intervening surfaces. Noise is also reduced by air absorption (1-2 dB per 1,000 feet), and wind and thermal attenuation (1 dB per 1,000 feet).

Regulatory Setting

Federal – The United States Occupational Safety and Health Administration (OSHA) has set a noise exposure standard at the noise threshold where hearing loss may occur from long-term exposure. The maximum allowable level is 90 dBA averaged over 8 hours. If the noise is greater than 90 dBA, the allowable exposure time is correspondingly shorter.

State - Interior residential standards for multifamily dwellings are set by the State of California at 45 dBA L_{dn} . Typically, the highest steady-traffic noise level during daytime is approximately equal to the L_{dn} , and nighttime levels are 10 dBA lower. For this reason, the interior residential standard is designed for sleep and speech protection, and most jurisdictions apply the same criterion for all residential uses.

Local – The City of Roseville addresses noise in both the General Plan Noise Element and Municipal Code Chapter 9.24, Noise Regulation.

- **General Plan Noise Element** – The General Plan Noise Element includes policies to achieve the City's goals of protecting residents from the harmful and annoying effects of exposure to excessive noise. The Noise Element establishes maximum allowable noise exposure levels for both transportation noise sources and fixed noise sources. The maximum allowable noise exposure of a transportation noise source, such as a bike path, is 60 dB L_{dn} to residential land uses, churches and hospitals; 65 dB L_{dn} to offices and 70 dB L_{dn} to parks. The Noise Element does not include a standard for construction noises, but states that the City shall regulate construction-related noise through the Noise Ordinance.
- **Chapter 9.24 of Municipal Code (Noise Ordinance)** – The Noise Ordinance, which is one of the City's adopted Mitigating Ordinance, implements the policies and standards of the General Plan by prohibiting unnecessary, excessive and annoying sound levels. The regulations of the Noise Ordinance are directed at fixed point noise sources, amplified noise, special event noise, and construction noise. The Noise Ordinance provides that the following activities are exempt from its provisions:
 - City operations and activities.
 - Sound sources associated with property maintenance (e.g., lawn mowers, edgers, blowers, pool pumps, power tools, etc.) provided such activities take place between the hours of 8:00 a.m. and 9:00 p.m. are not subject to the provisions of Chapter 9.24.
 - Construction activity noise generated Monday through Friday from 7 a.m. to 7 p.m. and Saturday/Sunday from 8 a.m. to 8 p.m. is exempt from the provisions of the Noise Ordinance provided that all construction equipment is fitted with factory installed muffling devices in good working order.

Impact Analysis

- a) *Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

- b) *Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?*
- c) *A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?*
- d) *A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?*

Implementation of the BMP Update has the potential to generate noise during construction, normal use and maintenance. Each of these activities is discussed below.

Construction Noise – Implementation of the BMP Update will include the construction of Class I bike paths and Class II bike lanes. Construction activities will generate noise, including groundborne vibration, resulting from the use of heavy construction vehicles and equipment.

Table 3-3 shows the noise emission levels of typical construction equipment that may be used for bikeway projects. The noise levels were measured at a distance of 50 feet from the source equipment.

TABLE 3-3 - CONSTRUCTION EQUIPMENT NOISE EMISSIONS LEVELS	
Equipment Type	Typical Noise Level (dBA) 50 feet from Source
Compactors	82
Front loaders	85
Backhoes	80
Graders	85
Pumps	76
Generators	81
Compressors	81
Jackhammers	88
Saws	76

Source: Federal Transit Administration 2006.

Table 3-4 outlines the attenuating characteristics for noise at different distances. The noise levels associated with construction equipment is reduced by 6 dB for every doubling of distances beyond 50 feet and is increased by 6 dB for every halving of distance within 50 feet.

The actual noise levels to be experienced by sensitive receptors during bikeway construction projects will be dependent on the type of proposed equipment, the proximity of the construction activities to the sensitive receptor(s), and any noise attenuating barriers between the equipment and receptor. Since this is a program level document and the actual location of trails is not known at this time, site-specific acoustic analyses have not been prepared.

It is anticipated that for some bikeway projects, construction noise sources may be as close as 25 feet to the sensitive receptor(s). An example would be construction of a Class I bike path within open space with abutting residential property. Given this distance, heavy earthmoving equipment can be expected to generate a noise level of up to 91 decibels at a distance of 25 feet. This noise level represents a temporary increase in ambient noise levels, including groundborne vibration.

The General Plan does not contain standards for construction noise. Further, the City of Roseville Noise Ordinance exempts construction noise generated during normal daytime hours from the requirements of the Noise Ordinance provided that all construction equipment is fitted with factory installed muffling devices in good working order. This requirement is implemented by the Design/Construction standards (Section 21-2.G). The City's adopted Findings for Mitigating Policies and Standards include a determination that the requirements Design/Construction Standards and Noise Ordinance would mitigate this potential impact to a **less than significant** level. Since these adopted policy documents represent

the community standard for acceptable levels of noise, it follows that bikeway construction noise, although above ambient levels, is not considered to have a substantial effect upon surrounding land uses. This determination is made in consideration of the temporary nature of construction activities. Therefore, this impact is also **less than significant**.

**TABLE 3-4
ESTIMATED CONSTRUCTION NOISE IN THE VICINITY OF AN ACTIVE CONSTRUCTION SITE**

Distance Attenuation	
Distance to Receptor (feet)	Sound Level at Receptor (dBA)
25	91
50	85
100	79
200	73
400	66
600	62
800	60
1,000	57
1,500	53
2,000	50
2,500	47
3,000	44
4,000	40
5,280	36
7,500	29

Notes: This calculation does not include the effects, if any, of local shielding, which may reduce sound levels further. The following assumptions were used:

Basic sound level drop-off rate: 6.0 dB per doubling of distance.

Molecular absorption coefficient: 0.7 dB per 1,000 feet.

Anomalous excess attenuation: 1.0 dB per 1,000 feet.

Reference sound level: 85 dBA

Distance for reference sound level: 50 feet.

Estimates are based on calculations for a grader.

Source: Hoover 1996.

Maintenance of Class II and III Bikeways – Maintenance activities for Class II bike lanes and Class III bike routes will include street sweeping, striping repair, asphalt repair and other activities commonly associated with roadway maintenance. The designation of a roadway as a Class II or III bikeway will not substantially increase the level of maintenance activities for the road. Therefore, the impact is **less than significant**.

Maintenance of Class I Trails – Maintenance activities for Class I bike paths will include weed spraying and mowing, litter pick-up, sweeping of debris, and asphalt maintenance (including crack seal/patching, slurry seal and overlays). Weed control and sweeping will occur as often as once a month. Disposal of trash in garbage cans may occur up to 2 times per week. Crack seal and patching will occur as needed, while slurry seals/overlays will occur typically 1 time every 5 to 8 years, or as necessary. The City expects that all maintenance activities will occur during daytime hours.

Noise associated with these maintenance activities will include regular vehicular noise as well as noise from mechanical mowing and sweeping equipment. Slurry seals and overlays will use vehicles similar to those described in the construction activities section. Mowers, blowers, weed cutters, and tractors can produce noise levels of up to 80 dBA at a distance of 100 feet. Newer equipment is outfitted with mufflers, which reduce the noise output to approximately 65 decibels at 50 feet. During infrequent asphalt

maintenance activities, higher noise levels will be generated in association with the use of heavier vehicles. These noise levels exceed the transportation noise source standards of the General Plan. However, the General Plan notes that Noise Ordinance is the used to implement the City's noise standards. As noted previously, the Noise Ordinance recognizes that typical municipal operations such as bike path maintenance may generate noise and exempts City maintenance activities from the requirements of the Noise Ordinance. Since most maintenance activities are of limited duration and infrequent in nature and given that City operations and activities are exempt from regulation by the Noise Ordinance as noted above, the impact is **less than significant**.

Utilization of Class II and III Bikeways – Use of Class II bike lanes and Class III bike routes would include commuting and recreational bicycling. Resulting noises would primarily be normal speech by bicyclists. Normal levels of speaking produce approximately 50 dB at a distance of 15 feet. This level of noise is less than the standards established by the General Plan and Noise Ordinance. Further, 50 dB is much lower than typical auto noise along a roadway. Therefore, the potential noise impact resulting from normal use of Class II bike lanes and Class III bike routes is **less than significant**.

Utilization of Class I Bike Trails - Normal use of the Class I bikeways includes commuter and recreational bicycling, walking, jogging, and rollerblading. Dogs on a leash are permitted on Roseville bike paths. No motorized vehicles are permitted on Class I bike trails. Given these user characteristics, the normal noises resulting from use of a trail would be speech by trail users, and occasional dog barking.

The maximum allowable exposures to transportation noise sources are 60 dB L_{dn} for residential areas. Normal levels of speaking produce approximately 50 dB at a distance of 15 feet. Further, per the Municipal Code, the permitted hours of bike path use are from sunrise to one hour after sunset. As a result, normal use of bikeways is not expected to cause significant levels of operation-related noise. Individual violations of the noise ordinance may be addressed through the City's Police Department. As a result, this impact is **less than significant**.

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

The Proposed Project is not located within an airport land use plan or within two miles of a public or private airport. Therefore, the Proposed Project would not expose workers or trail users to aircraft-generated noise and there would be **no impact**.

Mitigation Measures

None required.

Population and Housing

Would the project:

Environmental Issue	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?			X	
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?			X	

Environmental Setting

Roseville's current population is approximately 106,000. Over the past 10 years, Roseville and Placer County have experienced rapid growth, although the rate of growth has slowed the past two years.

Regulatory Setting

Federal and State – There are no federal or state regulations that apply to population and housing in the general context of the BMP Update. However, federal and state regulations may apply to bikeway projects that include right-of-way acquisition. The applicability of the regulations is dependent on the type of project, type of acquisition and source of funding.

Local - Chapter 13.24 of the Municipal Code includes procedures for the establishment of right-of-way lines for street widening. The purpose of right-of-way lines is to regulate and direct the extension of existing and future major streets and highways (roadways shown on the circulation element of the general plan.) The procedures for right-of-way lines may (but will not necessarily) be used for roadway construction projects that include Class II bike lanes.

Impact Analysis

a) Would the project induce substantial population growth?

Implementation of the Bicycle Master Plan will not either directly or indirectly facilitate or induce population growth. Instead, the bikeway projects planned therein are transportation and recreational facilities that will be made available to existing City residents and future residents in previously-planned growth areas. There is **no impact**.

b and c) Would the project displace substantial numbers of existing housing or persons.

The Class I and Class II bikeway projects contemplated by the BMP Update may in some instances require right-of-way acquisition. Right-of-way acquisitions for bikeway projects may involve the acquisition of undeveloped portions of residential, commercial, industrial and other types of properties. The actual

amount of right-of-way required for each bikeway project is not known at this time and will be determined during project-specific planning and engineering. The City is not intending to and does not expect any of the bikeway projects to require displacement of existing homes, businesses or persons. Therefore, the potential impact is **less than significant**.

Mitigation Measures

None required.

Public Services

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

Environmental Issue	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Fire protection?			X	
b) Police protection?			X	
c) Schools?				X
d) Parks?			X	
e) Other public facilities?			X	

Environmental Setting

The City of Roseville is a full service City that provides most of its own services to City residents and businesses. These include:

- Fire and police protection. Note: emergency medical services are provided by the Roseville Fire Department as well as by private ambulance services.
- Parks, recreation and library services
- Transit services (fixed route, commuter and dial-a-ride)

Other services provided within the City of Roseville include:

- Natural gas service by PG&E
- Telephone service by Surewest
- Cable television service by Comcast
- Elementary (K-8) school services in Roseville by the Roseville City School District, the Dry Creek Joint Elementary District, and the Eureka Union School District
- High school services provided by the Roseville Joint Union High School District

Regulatory Setting

Federal and State – No federal or state regulations apply to public services in the context of the BMP Update.

Local - The General Plan provides standards and guidelines for public services. The General Plan notes that the Police Department is responsible for patrolling City parks and open space, which includes Class I off-street bike trails. The General Plan also notes that the Fire Department is responsible for controlling wildland fires in open space. Chapter 10.53 of the Municipal Code (Spray Paint and Graffiti) provides standards for the abatement of graffiti.

Impact Analysis

a) Fire Protection?

The BMP Update will not generate additional residents and would not result in the need for new or expanded fire facilities. The construction of Class I bike trails would provide people with access to

previously inaccessible areas along creeks and open space. Additional use of bike trails could increase calls for emergency services within open space. Class I trails are designed to accommodate emergency vehicles and therefore this potential impact is **less than significant**. Designing trails to accommodate emergency vehicles would make it easier for fire personnel to respond to wildland fires. However, the presence of people will increase the risk of wildland fires. This potential impact is discussed in the Hazards section of this report.

b) *Police protection?*

The BMP Update will not generate additional residents and would not result in the need for new or expanded police facilities. Property owners and residents commonly express a concern regarding the potential for increased vandalism and illegal activities in areas where trails are constructed. Bike trails are patrolled by police officers on a regular basis. Police personnel state that graffiti is commonly seen along bike trails. In accordance with the City's graffiti abatement program, graffiti on public property is abated within 10 days of notification to the City. The City also abates graffiti on private property free of cost after receiving consent from the property owner if the consent is granted within the 10 day limit as noted in the City Ordinance. The Police Department indicates that other than graffiti they have not seen a trend of calls for service on bike paths. As a result, the potential impact to police services is **less than significant**.

c) *Schools?*

The BMP Update will not generate additional residents and would not result in the need for new or expanded school facilities. Bikeway projects proposed by the BMP Update are further intended to facilitate enhanced access to schools. There is **no impact**.

d) *Parks?*

The City Parks and Recreation Department maintains bike trails. Maintenance activities include weed control, shrub and tree trimming, and trash removal. The City Streets Division also provides bikeway maintenance services, including weed spraying, drainage control and asphalt repair. The project will increase the demand for bike path maintenance within the City. Although the maintenance requirements for trails will increase, the bikeway projects will not result in the need for new or expanded parks or streets maintenance facilities. In addition, the maintenance of bike trails within specific plan areas is typically funded through services districts and/or lighting and landscape districts. As a result, this impact is considered **less than significant**.

e) *Other public facilities?*

The BMP Update is not expected to result in the need for new or expanded transit, library, ambulance or other services. Bikeway projects may include earthwork or other activities that have the potential to affect underground or aboveground utility services such as natural gas service, telephone service, cable television and electric service. The City's project processing procedures and the Design/Construction standards include requirements to contact service providers that may be affected to ensure that conflicts are avoided or if conflicts cannot be avoided that measures are taken to avoid service disruptions. As a result, the impact is **less than significant**.

Mitigation Measures

None required.

Recreation

Would the project:

Environmental Issue	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that physical deterioration of the facility would occur or be accelerated?			X	
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			X	

Environmental Setting

The City of Roseville currently has 56 parks, ranging from small neighborhood parks to large regional parks. The City owns more than 1,300 acres of open space inside City limits. Public parks, golf courses and open space areas in Roseville are managed and maintained by the City's Parks and Recreation Department. The open space areas are set aside for flood protection, natural resource conservation and passive recreation. Many of the City's parks and open space areas are accessible via the bikeway system, and the bikeway system has been planned to include connections to the City's parks. Existing and proposed Class I bike paths are located within both parks and open space areas.

Regulatory Setting

Federal and State - No federal or state regulations apply to recreation in the context of the BMP Update.

Local - The Roseville General Plan establishes standards for park and open space development, maintenance and management.

Impact Analysis

a) and b) Increase use or deterioration of existing recreational facilities and/or require the construction or expansion of facilities which might have an adverse effect on the environment?

The BMP Update would not add new residents or create new land uses that would impact existing recreation facilities. The BMP Update would likely result in additional residents and visitors utilizing the bikeways because the planned bikeways are intended to provide connections to parks. However, it would be expected that many of these users would already be utilizing the park and recreation facilities and would be simply be using a non-motorized transportation alternative to reach the parks and open spaces. The proposed project would increase the use of existing parks and recreation facilities to the extent that the expanded bikeway system and BMP policies encourage park and open space use for residents who were not previously using these recreational facilities, or additional use by those already using the recreational facilities. However, this increased use would not be expected to substantially impact the parks and facilities to the extent that physical deterioration would occur nor would these facilities need to be expanded. Therefore, the project would have a **less than significant** impact on recreation facilities.

Mitigation Measures

None required.

Transportation/Traffic

Would the project:

Environmental Issue	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?			X	
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads and highways?			X	
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X
d) Substantially increase hazards due to design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
e) Result in inadequate emergency access?			X	
f) Result in inadequate parking capacity?		X		
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				X

Environmental Setting

The City's multimodal transportation system includes roadways, public transit, bikeways, pedestrian pathways/sidewalks and rail service. The focus of this section is bikeways, although each of the above modes are discussed at some level.

Roadways – Roseville's roadway network includes two freeways (Interstate 80 and State Highway 65) and arterial, collector and local streets. Bicycles are not permitted on the freeways.

The primary function of arterial roadways is to move large volumes of traffic through the City. Average Daily Traffic (ADT) is typically 12,000 vehicles or more. Arterial roadways typically have 4 to 6 lanes and a center median and are 76 to 100 feet wide. In a very few instances, arterials are planned to be 8 lanes at buildout. Arterial roadways typically have Class II bike lanes. However, some arterials, most often those in older infill areas, do not have bike lanes.

Collector streets are intended to link residential areas and commercial/office parking areas to the arterial road network. Collectors typically contain two traffic lanes and are 54 to 60 feet wide, with ADT between 2,000 and 15,000. Collectors often have Class II bike lanes. However, some collectors in both infill and newer areas do not have bike lanes. Where bike lanes are not provided on Collectors, the City may choose to provide Class III bike route signs and striping.

Local/residential streets are two lane roads that provide direct access to abutting lands and access to the collector and arterial street network. They are narrower than collectors and are intended to carry lower traffic volumes (up to 3,000 ADT) at lower speeds.

Public Transit – Roseville Transit, which is operated by the City of Roseville, provides public transit within Roseville. Roseville Transit includes fixed route, dial-a-ride and commuter services. Placer County Transit and Sacramento Regional Transit (RT) also provide connecting service into Roseville. All Roseville Transit, Placer County Transit and Sacramento RT buses include bike racks, allowing multi-modal trips. Greyhound Bus Lines and taxi services also operate within Roseville.

Rail – Union Pacific (UP) Railroad’s transcontinental rail line, switching yard and maintenance facilities are located in Roseville. The railroad facilities have had a major role in shaping Roseville. However, the rail yard and tracks create a substantial barrier to bicycle, pedestrian, and automobile circulation. The Capitol Corridor route is a commuter train service that operates on the UP rail line through Roseville and links the Bay Area, Sacramento and Placer County. The California Zephyr further provides nationwide east-west service between Chicago and Oakland. Bikes are permitted aboard Capitol Corridor and California Zephyr, with some restrictions.

Bikeways – The bikeway types in Roseville are Class I, II and III bikeways, which are described in detail in Chapter 2 of this report. Roseville’s existing bikeway system includes 27 miles of Class I bike trails, 83 miles of Class II bike lanes and 9 miles of Class III bike routes. Roseville also permits bicycling on all public sidewalks, except a select few in Downtown Roseville. In some instances (typically along arterial roads), the City provides wide sidewalks that are referred to as Class 1A side paths. These are provided for the enjoyment of children with their parents, and casual riders. Since sidewalks, including Class IA side paths, are primarily intended and designed to serve pedestrians, the City does not sign or map Class IA side paths or other sidewalks as bikeways.

Regulatory Setting

Federal and State – The Federal Highway Administration (FHWA) provides a framework for the design and construction of roadway projects, including bikeways that use federal money. This framework includes the Manual of Uniform Traffic Control Devices (MUTCD), which provides standards for signing and striping roadways, including bikeways. The State of California further establishes standards for the design and construction of roadway projects, including bikeways. The standards include the California MUTCD and the Highway Design Manual (HDM). The HDM includes standards for the design and construction of Class I, II and III bikeways.

Local - The Circulation Element of the General Plan is the guiding policy document for Roseville’s transportation and circulation system. The Circulation Element strives to attain a balanced multimodal circulation system that promotes alternative forms of transportation while recognizing that the automobile is the primary transportation mode within the City. Several of the implementing codes and policies are described below:

- **Transportation System Management (TSM) Ordinance.** The TSM Ordinance is designed to reduce vehicular travel demand in order to meet air quality goals. Employers of 50 or more are required to participate in this program. The TSM Ordinance includes standards for bike parking.
- **Zoning Ordinance.** The Zoning Ordinance includes standards for the required number and location of bike parking.

- **Capital Improvement Program (CIP).** The CIP program includes projects and programs intended to meet the vehicular level of service (LOS) policy established by the General Plan. LOS categories range from “A” through “F”, with LOS “A” representing the best range of operating conditions (high vehicle speed and low delay) and LOS “F” representing the worst (low vehicle speed and high delay). In Roseville, LOS is measured for PM peak traffic.

Impact Analysis

- a) *Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?*
- b) *Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads and highways?*

Temporary Construction Impacts: Construction of Class II bike lanes and in some instances Class I bike trails may require lane closures on existing roadways. Lane closures may temporarily impede traffic flow or cause an intersection to operate outside of City LOS standards. Because the need for lane closures cannot be determined until the design phase of individual bikeway projects, this document cannot analyze traffic conditions that may result from temporary construction activities. However, the Design/Construction Standards require any project involving lane closures or otherwise affecting traffic on existing streets to implement a traffic control plan that includes measures to minimize the impact to local traffic and warning signs per the Cal-MUTCD. The City’s adopted Findings for Mitigating Policies and Standards include a determination that the requirements of the Design/Construction Standards would mitigate this potential impact to a **less than significant** level.

Permanent Roadway Impacts: The BMP Update proposes the installation of Class II bike lanes on several existing arterial streets. In most instances, the bike lanes will be installed during a road widening project. For example, Taylor Road north of Roseville Parkway is currently 2 lanes wide. The City is planning to widen this section of Taylor Road to 4 lanes, and at that time will also install bike lanes. The Taylor Road widening and bike lane installation is expected to improve traffic conditions.

In some cases, the BMP Update proposes bike lane installation on an existing section of roadway that is not planned for widening. An example is Cirby Way between Sunrise Avenue and Rocky Ridge Drive. The existing pavement section of this section of Cirby Way will not accommodate the installation of bike lanes. However, the BMP Update is not intending or proposing to remove travel lanes or otherwise significantly effect vehicular travel lanes during the installation of Class II bike lanes. The Class II bike lane project would be required to provide sufficient right-of-way and improvements to maintain existing and planned vehicular levels of service. As a result, this impact is **less than significant**.

Increase in Bicycling for Transportation Purposes: The proposed bikeway system will serve both transportation and recreational users. Currently, 0.4% of Roseville residents use the bicycle as their primary mode of transportation to work. There are many other residents who use bicycles one or two days a week, or use bicycles for other transportation purposes, such as errands to the store. Additionally, children often use bicycles on their journey to school. One of the primary goals of the Bicycle Master Plan Update is to increase the percentage of all trips made by bicyclists in Roseville. Implementation of the BMP Update is expected to result in a modest increase in the bicycling mode split. The large majority of any additional bicycle commuters will begin and end their transportation trips at home. Based upon current trends, a very limited number of bicycle commuters may incorporate a vehicular trip as part of a multi-modal journey to work. For example, a bicyclist could drive to a park-and-ride lot for part of their trip and finish their trip by bike. To the extent that the journey to work mode split for bicycling increases, the overall affect is expected to be a reduction in vehicular trips. This is a **potentially beneficial impact**.

Increased Recreational Use of Bikeways: Implementation of the BMP Update would also increase on-street and off-street recreational bicycling. Construction of Class I trails would further increase walking, jogging, rollerblading and other non-cycling recreational trail use. Most recreational users will be Roseville residents, with some non-residents. The City expects that a majority of bikeway users to begin and end their recreational trips at their home or worksite. However, some recreational users, including both residents and non-residents, will drive to the starting point of their recreational trip. The number of new recreational trips is not expected to be substantial. Further, the new recreational trips will typically take place on weekends and before or after work, outside peak commute hours. As a result, there will be little or no impact to traffic and no impact to levels of service resulting from increased recreational use of bikeway facilities. The potential impact is **less than significant**.

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

Implementation of the BMP Update will include the construction of structures, including bridges that span creeks or roadways. As noted in the Hazards section, there are no airports within or in close proximity to Roseville. Further, BMP Update implementation will not involve aircraft operations or otherwise affect air traffic patterns. There is **no impact**.

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

Bikeway projects proposed by the BMP Update will be designed and constructed in accordance with the City Design/Construction Standards and by reference therein the Cal Trans Highway Design Manual, Cal-MUTCD, and other applicable standards. The standards include but are not limited to specifications for minimum width, clearance to obstructions, sight distance, signs, intersections with and relation to roadways, grading, structures (including bridges) and lighting. Compliance with these standards would ensure that bikeway design features do not result in significant hazards.

Consistent with the City's Capital Improvement Program policies, the BMP Update's Bikeway Route Development policies note that there may be instances where the Public Works Director and/or Transportation Commission may approve changes to a bikeway designation. Such changes may include the removal of a bike lane on an existing street. In those cases, the bike lane may or may not be replaced with Class III bikeway designation. Where a bikeway designation is changed, the City of Roseville will implement the standards of the Design/Construction Standards. The City may further direct bicyclists to use an alternative route or install signs informing motorists that bicycles will be sharing the road. The impact is **less than significant**.

- e) *Result in inadequate emergency access?*

Temporary Construction Impacts: As noted previously, construction of Class II bike lanes and in some instances Class I bike trails may require lane closures on existing roadways. Lane closures could impede or slow emergency response vehicles. Because the need for lane closures cannot be determined until the design phase of individual bikeway projects, this document cannot analyze the specific impact to emergency response from temporary construction activities. As noted previously, the Design/Construction Standards require any project involving lane closures or otherwise affecting traffic on existing streets to institute a traffic control plan that includes measures to minimize the impact to local traffic and warning signs per the Cal-MUTCD. Implementation of a traffic control plan would take emergency response into consideration. The City's adopted Findings for Mitigating Policies and Standards include a determination that the requirements of the Design/Construction Standards would mitigate this potential impact to a **less than significant** level.

Long Term Impacts: The installation of Class II bike lanes results in a wider roadway section. This will not affect and may benefit emergency responders. Installation of Class I bike lanes will enhance

emergency vehicle access into open space areas. As a result, this potential impact is **less than significant** impact.

f) *Result in inadequate parking capacity?*

Removal of On-street Parking: Vehicular parking is provided as either on-street or off-street parking. In new development, the City Zoning Ordinance requires that the demand for parking be accommodated by off-street parking lots. As a result, collector and arterial roadways typically include bike lanes and do not include on-street parking. On-street parking is typically permitted on local residential streets, on collector streets in the older areas of the City's Infill area, and on some industrial streets. In most cases where on-street parking is permitted, there is no bike lane. There is also a trend in some newer development areas to provide on-street parking in "traditional" style neighborhoods. In those instances, the new roadways may include both on-street parking and bike lanes.

The BMP Update proposes new bike lanes on several existing streets. In most instances, the streets involved are: Arterial or collector roadways where parking is not currently permitted and is not planned for the future; primary residential or other residential streets where properties do not front onto the street and there is no existing demand for on-street parking; or local streets where adequate right-of-way is available for both parking and bike lanes (portions of Cirby Way). In those instances, the impact on parking capacity will be **less than significant**.

In a relatively few instances, Class II bike lanes are proposed on streets with existing, well-used on-street parking. These include Foothills Boulevard north of Blue Oaks Boulevard and Church Street. The installation of bike lanes in those cases could result in a **potentially significant impact** on existing parking capacity. Implementation of Mitigation Measure T-1: Parking Study for Class II Bike Lanes will reduce the potential impact to a less than significant level.

Increased Demand for Vehicular and Bicycle Parking: As noted previously, implementation of the BMP Update may increase on-street and off-street recreational bicycling. Construction of Class I trails would further increase walking, jogging, rollerblading and other non-cycling recreational trail use. Most recreational users will be Roseville residents, with some non-residents. The City expects that a majority of bikeway users to begin and end their recreational trips at their home or worksite. However, some recreational users, including both residents and non-residents, will drive to the starting point of their recreational trip. Users will park in either: Designated municipal parking lots, such as at schools, parks, and libraries; in available on-street parking in neighborhoods; or in commercial parking lots. The number of new recreational trips is not expected to be substantial. Further, City maps and brochures will direct users to park at park sites (which may include on-street or off-street parking), designated municipal parking lots and trailhead parking lots. As a result, the potential impact upon vehicle parking is **less than significant**.

To the extent that the BMP Update increases the journey to work mode split for bicycling, the overall demand for vehicle parking may be reduced and the demand for bicycle parking will be increased. The City of Roseville Municipal Code includes bike parking requirements that are expected to sufficiently accommodate any increased demand for bicycle parking. As a result, the potential impact upon bicycle parking is **less than significant**.

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

Implementation of the BMP Update's bikeway projects and implementing policies would encourage the use of bicycles for commuting, recreational, and other trips. One of the primary goals of the plan is to increase the journey to work mode split for bicycling. Implementation of the BMP Update will result in long-term, beneficial impacts related to alternative transportation. There is **no impact**.

Mitigation Measures

Mitigation Measure T-1: Parking Study for Class II Bike Lanes. Capital Improvement Projects involving the installation of Class II bike lanes on existing roadways where existing on-street parking may be removed shall include a feasibility study to determine the affect upon on-street parking. The feasibility study may include engineering plans, parking studies, and measures to avoid or minimize the affect upon the roadway and surrounding neighborhoods/businesses.

Utilities and Service Systems

Would the project:

Environmental Issue	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			X	
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			X	
e) Result in a determination by the wastewater treatment provider which serves the project that it has adequate capacity to serve the project's projected demand in addition of the provider's existing commitments?			X	
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			X	
g) Comply with federal, state, and local statutes and regulations related to solid waste?			X	

Environmental Setting

The City of Roseville is a full service City that provides most of its own utilities, including:

- Water
- Wastewater
- Reclaimed Water
- Stormwater
- Solid Waster Collection. Note: Solid waste management services are provided by the Western Placer Waste Management Authority, of which the City is a partner.

Regulatory Setting

Federal and State - No federal or state regulations apply to utilities in the context of the BMP Update.

Local - The Roseville General Plan Public Facilities Element establishes standards for utility services within the City. The relationship between bikeways and utilities is not referenced in the General Plan. However, it should be noted that sewer lines are typically aligned along creek corridors and bike trails are located and designed to facilitate maintenance vehicle access to sewer manholes.

Impact Analysis

- a) *Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?*
- b) *Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*
- d) *Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?*
- e) *Result in a determination by the wastewater treatment provider which serves the project that it has adequate capacity to serve the project's projected demand in addition of the provider's existing commitments?*

The BMP Update would not require the construction of new water or wastewater facilities, nor would it affect wastewater treatment facilities. Support facilities for the proposed bikeways may include drinking water, restrooms, and trash receptacles. These would typically be provided at existing or planned parks and other public facilities. There may be some locations that require stand-alone drinking fountains and locations that would need separate restrooms. Minimal water supplies would be necessary beyond those needed for construction activities or limited drinking fountains. Any stand-alone rest room facilities would be relatively small and limited in number. Therefore, the impacts to water and wastewater facilities would be **less than significant**.

City sewer lines are often located along creeks where Class I bike trails are planned. Class I bikeway construction and maintenance activity could temporarily interfere with the ability of Public Works Department staff to perform routing or emergency maintenance activities on affected sewer lines. However, Class I bike trail construction projects are required to follow the City Project Processing guidelines. This includes early consultation with all City service providers. This consultation will ensure that the potential impact related to temporary obstruction of access to sewer lines is **less than significant**. Since Class I trails are designed to facilitate maintenance vehicle access to open space per the Design/Construction standards, placement of bike trails in proximity to sewer lines is beneficial.

- c) *Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

Storm water in Roseville is directed via drain inlets into a series of underground pipes within roadways and other public parcels. These pipes outfall into the City creek system, at which point the water flows downstream. The amount of stormwater that enters the creek system increases as undeveloped ground is replaced by impervious surfaces such as paved bikeways.

Class II bike lanes are proposed along new and existing roads. For existing roads, Class II bike lanes will typically be installed with a road widening project, but in some instances may be installed as a separate bikeway project. In either case, new or modified drain inlets and pipes may be required because there will be an increase in the amount of impervious surfaces and because existing inlets/outfalls may be located in an area proposed for widening. The need for new or modified drain inlets or pipes would be evaluated during the project-specific planning and engineering for a project.

Proposed Class I bike trails may also result in the need for new and in some cases modified drainage facilities. These would primarily be drainage swales with underground pipes spaced at intervals to convey surface water from the uphill side of the trail to the downhill side. There will also be instances where existing drainage facilities from roadways and other capital improvements will be modified by new Class I trails. The need for new or modified drain inlets or pipes would be evaluated during the project-specific planning and engineering for a project.

The impervious surfaces resulting from new Class I bike trails and Class II bike lanes will increase the amount of water entering the City's creek system. The impervious surfaces resulting from road widening within existing City limits and proposed bike trails has been included in storm water runoff and flood projections for the General Plan, and are addressed through the collection of drainage fees per Roseville Municipal Code Section 4.48. In addition, the amount of proposed new bikeways included in the BMP Update but not included in the prior General Plan is relatively small, especially when considered in context with the whole of the City. As a result, this is not expected to result in the need for modifications to any major drainage facilities. Further, the Design/Construction Standards include Best Manage Practices intended to mitigate the environmental effects associated with storm water drainage. The City's adopted Findings for Mitigating Policies and Standards include a determination that the requirements of the Design/Construction Standards and Roseville Municipal Code Section 4.48 would mitigate this potential impact to a **less than significant** level.

- f) *Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?*
- g) *Comply with federal, state, and local statutes and regulations related to solid waste?*

Bikeway projects constructed per the BMP Update may generate solid waste during construction. The solid waste would be disposed of at the Western Regional Sanitary Landfill, which complies with all federal, state, and local regulations. The solid waste generated during construction would be mostly roadway materials (earthwork and asphalt concrete). The amount of solid waste anticipated to be generated would be minimal and not substantially reduce the lifespan of the Western Regional Sanitary Landfill. After construction or designation, public use of Class II bike lanes and Class III bike routes would not be expected to generate any significant amounts of solid waste. Once constructed, Class I bike paths and support facilities would require trash receptacles at periodic intervals, specifically at trailheads. However, the amount of solid waste generated by use of the bikeways is anticipated to be minimal; therefore, the impacts would be **less than significant**.

Mandatory Findings of Significance

Environmental Issue	Potentially Significant	Potentially Significant Unless Mitigation Incorporated	Less Than Significant	No 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?		X		
b) Does the project have impacts which 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).		X		
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X		

Impact Analysis

- 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?*

The Biological Resources section of this initial study contains a detailed evaluation of the project's potential affect upon the environment, including vegetation, fish and wildlife, and rare, threatened, endangered or special-status plant and animal species. That analysis concludes that implementation of the BMP Update would result in a **potentially significant impact** upon biological resources. However, the following Mitigation Measures are provided to reduce the potential effect on these resources to a less than significant level:

- B-1: Survey for Wetlands.
- B-2: Survey for Riparian Habitat and Special-status Plant Species
- B-3: Preliminary Survey for Special-status Animal Species.
- B-4: Pre-construction Survey for Swainson's Hawk.
- B-5: Pre-construction Survey for Other Raptors.

- B-6: Pre-construction Survey for Western Burrowing Owls.
- B-7: Pre-construction Survey for Migratory Birds.
- B-8: Pre-construction Survey for Western Pond Turtle, Western Spadefoot Toad and Pallid Bat.

The Cultural Resources section of this initial study contains an evaluation of the project's potential affects on historic and pre-historic cultural resources. That analysis concludes that implementation of the BMP Update would result in a **potentially significant impact** upon cultural resources. However, Mitigation Measure CR-1: Cultural Resources Inventory and CR-2: Work Stoppage and Notification are provided to reduce the potential effect on these resources to a less than significant level.

Based upon these analyses, the proposed project will not: degrade the quality of the environment; substantially reduce the habitat of 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 major periods of California's history or prehistory.

- b) *Does the project have impacts, which 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).*

The initial study did not identify any significant and unavoidable impacts. The initial study did identify several potentially significant impacts for which mitigation measures were identified that reduce the impact to a less than significant level. A summary of the **potentially significant impacts** is provided below:

Air Quality. As noted in the Air Quality section, implementation of the BMP Update may result in a Result in a cumulatively considerable net increase of criteria air pollutants in association with construction emissions. Mitigation Measure AQ-1: Construction Emissions Control Measures would reduce the impacts to a less than significant level. With the implementation of this mitigation measure, the air quality impacts resulting from implementation of the BMP Update would not be cumulatively considerable when viewed in connection with the effects of past, current, or probable future projects.

Biological Resources. As noted in the Biological Resources section, implementation of the BMP Update results in potentially significant impacts related to biological resources. In particular, the BMP Update may adversely effect candidate, sensitive or special-status species, riparian habitat, and federally protected wetlands. Further, the BMP Update may be inconsistent with an adopted conservation plan(s). The following Mitigation Measures would reduce the impacts to a less than significant level:

- B-1: Survey for Wetlands.
- B-2: Survey for Riparian Habitat and Special-status Plant Species
- B-3: Preliminary Survey for Special-status Animal Species.
- B-4: Pre-construction Survey for Swainson's Hawk.
- B-5: Pre-construction Survey for Other Raptors.
- B-6: Pre-construction Survey for Western Burrowing Owls.
- B-7: Pre-construction Survey for Migratory Birds.
- B-8: Pre-construction Survey for Western Pond Turtle, Western Spadefoot Toad and Pallid Bat.

With the implementation of these mitigation measures, the biological impacts resulting from implementation of the BMP Update would not be cumulatively considerable when viewed in connection with the effects of past, current, or probable future projects.

It should further be noted that the City recently adopted the Roseville Creek and Riparian Management and Restoration Plan. Although not one of the adopted Mitigating Standards or Policies, this plan includes best management practices for City activities that occur throughout the City open space system, including

bike path development. The plan also provides a comprehensive plan for enhancement and restoration of the creek corridor open space areas, which helps to address concerns about cumulative impacts to biological resources.

Cultural Resources. As noted in the Cultural Resources section, implementation of the BMP Update results in potentially significant impacts to cultural resources. Mitigation Measures CR-1: Cultural Resources Inventory and CR-2: Work Stoppage and Notification would reduce the impact to a less than significant level. With the implementation of these mitigation measures, the cultural resource impacts resulting from implementation of the BMP Update would not be cumulatively considerable when viewed in connection with the effects of past, current, or probable future projects.

Hazards. As noted in the Hazards section, implementation of the BMP Update results in potentially significant impacts related to hazardous materials and wildfires. Mitigation Measures HA-1: Site Assessments for Hazardous Materials, HA-2: Clearing of Flammable Materials and HA-3: Use of Spark Arresters would reduce the impacts to a less than significant level. With the implementation of these mitigation measures, the hazards impacts resulting from implementation of the BMP Update would not be cumulatively considerable when viewed in connection with the effects of past, current, or probable future projects.

Hydrology/Water Quality. As noted in the Hydrology section, implementation of the BMP Update results in potentially significant impacts related to flooding. Mitigation Measures HY-1: Hydraulic Analysis and HY-2: Flood Impact Avoidance Measures would reduce the impacts to a less than significant level. With the implementation of these mitigation measures, the hydrology/water quality impacts resulting from implementation of the BMP Update would not be cumulatively considerable when viewed in connection with the effects of past, current, or probable future projects.

It should further be noted that the City recently joined the Sacramento Stormwater Quality Partnership (SSQP) and adopted a new Urban Stormwater Quality Management and Discharge Control Ordinance (Municipal Code Chapter 14.20). The SSQP ensures that stormwater quality development standards are being prepared for projects located throughout Sacramento County and in the City of Roseville. The Urban Stormwater Quality Ordinance is intended to protect and enhance the water quality of watercourses and water bodies in a manner pursuant to and consistent with the Federal Clean Water Act by reducing pollutants in stormwater discharges to the maximum extent practicable and by prohibiting non-stormwater discharges to the stormwater conveyance system. The proposed project will be developed in accordance with this ordinance. This helps address concerns about cumulative impacts to water quality.

Land Use. The Land Use section identified a potentially significant impact related to consistency with existing operations & management plans. Mitigation Measure LU-1: Agency Consultation would reduce the impact to a less than significant level. With the implementation of this mitigation measure, the land use impacts resulting from implementation of the BMP Update would not be cumulatively considerable when viewed in connection with the effects of past, current, or probable future projects.

It should further be noted that the City is currently working with the U.S. Army Corps of Engineers and other resource agencies that have an interest in the operations and management of preserves to develop an overarching preserve management plan for Roseville. The overarching preserve management plan is intended to provide a comprehensive and consistent set of policies for preserve management. This will also be an opportunity to align the preserve management plans and the BMP.

Transportation/Traffic. The Transportation/Traffic section identified a potentially significant impact related to loss of on-street parking. Mitigation Measure T-1: Parking Study for Class II Bike Lanes would reduce the impact to a less than significant level. With the implementation of this mitigation measure, the land use impacts resulting from implementation of the BMP Update would not be cumulatively considerable when viewed in connection with the effects of past, current, or probable future projects.

Conclusion. All of the potentially significant impacts have been reduced to a less than significant level with the recommended mitigation measures. In addition, these impacts are primarily related to construction of Class I and Class II bikeways and are therefore temporary. With the implementation of this mitigation measures, the impacts resulting from implementation of the BMP Update would not be cumulatively considerable when viewed in connection with the effects of past, current, or probable future projects. In several instance, the City has also identified new policies, standards and ordinance that further address the potential impacts.

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

Potentially significant impacts that may affect humans include those related to air quality, hazards, hydrology/water quality and noise. Mitigation measures were identified for each of these impact areas such that the impacts are reduce to a less than significant level. With incorporation of mitigation measures, implementation of the BMP Update would not cause substantial adverse effects on human beings, either directly or indirectly.

Mitigation Measures

No new mitigation measures are required. See Air Quality, Biology, Cultural Resources, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Transportation/Traffic sections for the following Mitigation Measures that apply to the Mandatory Findings of Significance:

AQ-1: Construction Emissions Control Measures

B-1: Survey for Wetlands.

B-2: Survey for Riparian Habitat and Special-status Plant Species

B-3: Preliminary Survey for Special-status Animal Species.

B-4: Pre-construction Survey for Swainson's Hawk.

B-5: Pre-construction Survey for Other Raptors.

B-6: Pre-construction Survey for Western Burrowing Owls.

B-7: Pre-construction Survey for Migratory Birds.

B-8: Pre-construction Survey for Western Pond Turtle, Western Spadefoot Toad and Pallid Bat.

CR-1: Cultural Resources Inventory

CR-2: Work Stoppage and Notification

HA-1: Site Assessments for Hazardous Materials

HA-2: Clearing of Flammable Materials

HA-3: Use of Spark Arresters

HY-1: Hydraulic Analysis

HY-2: Flood Impact Avoidance Measures

LU-1: Agency Consultation

T-1: Parking Study

APPENDIX A: Source References

APPENDIX A - Source References

The following source documents were reviewed in preparation of this Initial Study:

- City of Roseville General Plan (2004)
- City of Roseville 2008 Bicycle Master Plan Update (March 2008 draft)
- Draft and Final EIR, City of Roseville General Plan (1992)
- City of Roseville Bicycle Master Plan Draft and Final EIR (Jones & Stokes Associates 2001)
- Roseville Creek and Riparian Management and Restoration Plan Initial Study (Foothills Associates 2005)
- City of Roseville Mitigating Policies and Standards (City of Roseville 2003)

These documents are available for review at the City of Roseville Permit Center and Community Development Department, 311 Vernon Street, Roseville, CA 95678.

APPENDIX B: Bikeway Construction Emissions Model

Road Construction Emissions Model, Version 5.2

Emission Estimates for -> Roseville BMP Update					Exhaust	Fugitive Dust
Project Phases (English Units)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	PM10 (lbs/day)	PM10 (lbs/day)	PM10 (lbs/day)
Grubbing/Land Clearing	10	47	48	18	3	15
Grading/Excavation	11	49	51	18	3	15
Drainage/Utilities/Sub-Grade	11	51	51	18	3	15
Paving	6	28	33	2	2	0
Maximum (pounds/day)	11	51	51	18	3	15
Total (tons/construction project)	0.22	0.85	1.21	0.35	0.07	0.28

Notes:

- Project Start Year -> 2008
- Project Length (months) -> 2
- Total Project Area (acres) -> 7
- Maximum Area Disturbed/Day (acres) -> 3
- Total Soil Imported/Exported (yd³/day)-> 60

PM10 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I.

Emission rate (grams/mile)	0.75	8.63	7.25	0.27
Pounds per day	0.1	1.7	1.4	0.1
Tons per construction period	0.00	0.02	0.01	0.00

Worker commute default values can be overridden in cells C62 through C67

20
2
8.75
11.25
11.25

0

Worker Commute Emissions	User Override of Worker Commute Default Values		Default Values	
	Value	Unit	Value	Unit
Miles one-way trip			20	Miles
One-way trips/day			2	trips/day
No. of employees - Grubbing/and Clearing			9	employees
No. of employees - Grading/Excavation			11	employees
No. of employees - Drainage/Utilities/Sub-Grade			11	employees
No. of employees - Paving			11	employees
Emission rate (grams/mile)	ROG	NOX	CO	PM10
Emission rate (grams/strip)	0.30	0.72	6.25	0.04
Pounds per day - Grubbing/and Clearing	1.62	16.13	16.13	0.02
Tons per day - Grubbing/and Clearing	0.4	0.1	6.1	0.0
Tons per const. Period - Grubbing/and Clearing	0.0	0.0	0.0	0.0
Pounds per day - Grading/Excavation	0.5	0.1	7.8	0.0
Tons per day - Grading/Excavation	0.0	0.0	0.1	0.0
Tons per const. Period - Grading/Excavation	0.0	0.0	0.1	0.0
Pounds per day - Drainage/Utilities/Sub-Grade	0.5	0.1	7.8	0.0
Tons per const. Period - Drainage/Utilities/Sub-Grade	0.0	0.0	0.1	0.0
Pounds per day - Paving	0.5	0.1	7.8	0.0
Tons per const. Period - Paving	0.0	0.0	0.0	0.0
Tons per construction period	0.0	0.0	0.2	0.0

Water truck default values can be overridden in cells C97 through C99 and E87 through E89

Water Truck Emissions	Program Estimate of		User Override of Water Truck Miles Traveled		Default Values	
	Number of Water Trucks	Number of Water Trucks	Miles Traveled	Miles Traveled/Day	Miles Traveled/Day	tonnes/period
Grubbing/and Clearing - Exhaust		1			40	40
Grading/Excavation - Exhaust		1			40	40
Drainage/Utilities/Subgrade		1			40	40
Emission rate (grams/mile)	ROG	NOX	CO	PM10		
Emission rate (grams/mile)	0.75	8.63	7.25	0.27		
Pounds per day - Grubbing/and Clearing	0.1	0.8	0.6	0.0		
Tons per const. Period - Grubbing/and Clearing	0.00	0.00	0.00	0.00		
Pounds per day - Grading/Excavation	0.1	0.8	0.6	0.0		
Tons per const. Period - Grading/Excavation	0.00	0.01	0.01	0.00		
Pounds per day - Drainage/Utilities/Subgrade	0.1	0.8	0.6	0.0		
Tons per const. Period - Drainage/Utilities/Subgrade	0.00	0.01	0.00	0.00		

Fugitive dust default values can be overridden in cells C104 and C105

Fugitive PM10 Dust	User Override of Max Average Day		Default Maximum Average Day		Default Values	
	Value	Unit	Value	Unit	Value	Unit
Fugitive Dust - Grubbing/and Clearing		pounds/day	3	15.0	3	15.0
Fugitive Dust - Grading/Excavation		pounds/day	3	15.0	3	15.0
Fugitive Dust - Drainage/Utilities/Subgrade		pounds/day	3	15.0	3	15.0

3
3
3

Off-road equipment default number of vehicles can be overridden in cells B115 through B324

Off-Road Equipment Emissions

Grubbing/Land Clearing Override of Default Number of Vehicles	Default Number of Vehicles Program-estimate	Type	ROG pounds/day	CO pounds/day	NOx pounds/day	PM10 pounds/day
		Backhoes	0.00	0.00	0.00	0.00
		Boer/Dial Rigs	0.00	0.00	0.00	0.00
		Concrete/Industrial Saws	0.00	0.00	0.00	0.00
		Compactor	0.00	0.00	0.00	0.00
		Cranes	0.00	0.00	0.00	0.00
		Crawler Tractors	0.00	0.00	0.00	0.00
		Crushing/Proc. Equipment	0.00	0.00	0.00	0.00
	1	Dozer	3.83	17.20	21.55	1.12
		Excavator	0.00	0.00	0.00	0.00
		Forklifts, Rough Terrain	0.00	0.00	0.00	0.00
		Grader	0.00	0.00	0.00	0.00
		Loaders, Rubber Tired	0.00	0.00	0.00	0.00
		Off-Highway Trucks	0.00	0.00	0.00	0.00
		Other Construction Equip	0.00	0.00	0.00	0.00
		Pavers	0.00	0.00	0.00	0.00
		Paving Equipment	0.00	0.00	0.00	0.00
		Rollers	0.00	0.00	0.00	0.00
	1	Scraper	3.64	16.63	15.96	0.85
	4	Signal Boats	2.61	6.41	9.47	0.69
		Skid Steer Loaders	0.00	0.00	0.00	0.00
		Surfacing Equipment	0.00	0.00	0.00	0.00
		Tractors	0.00	0.00	0.00	0.00
		Trenchers	0.00	0.00	0.00	0.00
			9.9	40.2	47.0	2.5
			0.0	0.1	0.1	0.0

Grading/Excavation

Override of Default Number of Vehicles	Number of Vehicles Program-estimate	Type	ROG pounds/day	CO pounds/day	NOx pounds/day	PM10 pounds/day
		Backhoes	0.00	0.00	0.00	0.00
		Bore/Dial Rigs	0.00	0.00	0.00	0.00
		Concrete/Industrial Saws	0.00	0.00	0.00	0.00
		Compactor	0.00	0.00	0.00	0.00
	0	Cranes	0.00	0.00	0.00	0.00
		Crawler Tractors	0.00	0.00	0.00	0.00
		Crushing/Proc. Equipment	0.00	0.00	0.00	0.00
		Dozer	0.00	0.00	0.00	0.00
	1	Excavator	1.84	8.34	6.47	0.34
		Forklifts, Rough Terrain	0.00	0.00	0.00	0.00
	1	Grader	1.20	5.64	9.73	0.53
		Loaders, Rubber Tired	0.92	4.50	7.01	0.38
		Off-Highway Trucks	0.00	0.00	0.00	0.00
	0	Other Construction Equip.	0.00	0.00	0.00	0.00
		Pavers	0.00	0.00	0.00	0.00
		Paving Equipment	0.00	0.00	0.00	0.00
		Rollers	0.00	0.00	0.00	0.00

Drainage/Utilities/Subgrade		Number of Vehicles		ROG		CO		NOX		PM10	
Override of Default Number of Vehicles	Program-estimate	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
		1 Scraper	3.64	15.63	15.56	0.85					
		5 Signal Boats	2.61	6.41	9.47	0.89					
		Solid Steer Loaders	0.00	0.00	0.00	0.00					
		Surfacing Equipment	0.00	0.00	0.00	0.00					
		Tractors	0.00	0.00	0.00	0.00					
		Trenchers	0.00	0.00	0.00	0.00					
		max pounds per day	10.2	39.5	48.5	3.0					
		tons per period	0.1	0.4	0.5	0.0					

Drainage/Utilities/Subgrade		Number of Vehicles		ROG		CO		NOX		PM10	
Override of Default Number of Vehicles	Program-estimate	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
		Backhoes	0.00	0.00	0.00	0.00					
		Bore/Drill Rigs	0.00	0.00	0.00	0.00					
		Concrete/Industrial Saws	0.00	0.00	0.00	0.00					
		Compactor	2.08	10.32	9.43	0.52					
		Cranes	0.00	0.00	0.00	0.00					
		Crawler Tractors	0.00	0.00	0.00	0.00					
		Crushing/Proc. Equipment	0.00	0.00	0.00	0.00					
		Dozer	0.00	0.00	0.00	0.00					
		Excavator	0.00	0.00	0.00	0.00					
		Forklifts, Rough Terrain	0.00	0.00	0.00	0.00					
		Grader	0.00	0.00	0.00	0.00					
		Loaders, Rubber Tired	0.00	0.00	0.00	0.00					
		Off-Highway Trucks	0.00	0.00	0.00	0.00					
		Other Construction Equip.	0.00	0.00	0.00	0.00					
		Pavers	0.00	0.00	0.00	0.00					
		Paving Equipment	0.00	0.00	0.00	0.00					
		Rollers	0.00	0.00	0.00	0.00					
		1 Scraper	3.64	18.63	15.96	0.85					
		5 Signal Boats	2.61	6.41	9.47	0.89					
		Skid Steer Loaders	0.00	0.00	0.00	0.00					
		Surfacing Equipment	0.00	0.00	0.00	0.00					
		Tractors	0.00	0.00	0.00	0.00					
		1 Trenchers	0.99	3.65	5.89	0.41					
		max pounds per day	10.5	42.7	50.3	3.2					
		tons per period	0.1	0.3	0.3	0.0					

Paving		Number of Vehicles		ROG		CO		NOX		PM10	
Override of Default Number of Vehicles	Program-estimate	Type	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
		Backhoes	0.00	0.00	0.00	0.00					
		Bore/Drill Rigs	0.00	0.00	0.00	0.00					
		Concrete/Industrial Saws	0.00	0.00	0.00	0.00					
		Compactor	0.00	0.00	0.00	0.00					
		Cranes	0.00	0.00	0.00	0.00					
		Crawler Tractors	0.00	0.00	0.00	0.00					
		Crushing/Proc. Equipment	0.00	0.00	0.00	0.00					
		Dozer	0.00	0.00	0.00	0.00					
		Excavator	0.00	0.00	0.00	0.00					
		Forklifts, Rough Terrain	0.00	0.00	0.00	0.00					
		Grader	0.00	0.00	0.00	0.00					
		Loaders, Rubber Tired	0.00	0.00	0.00	0.00					
		Off-Highway Trucks	0.00	0.00	0.00	0.00					
		Other Construction Equip.	0.00	0.00	0.00	0.00					

	1	Pavers	0.93	4.55	7.08	0.38
	1	Paving Equipment	0.78	3.44	7.28	0.39
	2	Rollers	1.17	5.74	8.93	0.48
		Scraper	0.00	0.00	0.00	0.00
	4	Signal Boards	2.61	8.41	9.47	0.89
		Skid Steer Loaders	0.00	0.00	0.00	0.00
		Surfacing Equipment	0.00	0.00	0.00	0.00
		Tractors	0.00	0.00	0.00	0.00
		Trenchers	0.00	0.00	0.00	0.00
		pounds per day	5.5	20.1	32.8	2.1
		tons per period	0.0	0.1	0.1	0.0
Total Emissions (tons per construction period)			0.2	0.8	1.0	0.1
			16			

Equipment default values for horsepower, load factor, and hour/day can be overridden in cells C235 through C256, E235 through E256, and G235 through G256.

Equipment	Default Values Horsepower	Default Values Load Factor	Default Values Hour/Day	Default Values Horsepower	Default Values Load Factor	Default Values Hour/Day
Bored/Pile Pigs	218	0.75	8	218	0.75	8
Concrete/Industrial Saws	84	0.73	8	84	0.73	8
Cranes	190	0.43	8	190	0.43	8
Crawler Tractors	143	0.575	8	143	0.575	8
Crushing/Proc. Equipment	154	0.78	8	154	0.78	8
Excavators	180	0.58	8	180	0.58	8
Graders	174	0.575	8	174	0.575	8
Off-Highway Tractors	285	0.41	8	285	0.41	8
Off-Highway Trucks	417	0.49	8	417	0.49	8
Other Construction Equipment	190	0.62	8	190	0.62	8
Pavers	132	0.59	8	132	0.59	8
Paving Equipment	111	0.53	8	111	0.53	8
Rollers	114	0.43	8	114	0.43	8
Rough Terrain Forklifts	94	0.475	8	94	0.475	8
Rubber Tired Dozers	352	0.59	8	352	0.59	8
Rubber Tired Loaders	165	0.465	8	165	0.465	8
Scrapers	313	0.66	8	313	0.66	8
Signal Boards	25	0.82	8	25	0.82	8
Skid Steer Loaders	62	0.515	8	62	0.515	8
Surfacing Equipment	437	0.49	8	437	0.49	8
Tractor/Loader Backhoes	79	0.465	8	79	0.465	8
Trenchers	82	0.695	8	82	0.695	8

Default load factors from SCAQMD CEQA Handbook 1993

Default horsepower values from Appendix B, California Air Resources Board's Official Model (see also Appendix B of this spreadsheet).

Signal board horsepower based on U.S. EPA, 1989 Final Regulation Impact Analysis Control of Emissions from Nonroad Diesel Engines (EPA420-R-99-016).

END OF DATA ENTRY SHEET

Horsepower Load Factor Hours/Day
 Columns Horsepower
 (L/MXN) Class

218	0.75	8.0	1396.0	4
84	0.73	8.0	489.0	2
190	0.43	8.0	655.1	4
143	0.575	8.0	659.6	3
154	0.78	8.0	983.0	3
180	0.58	8.0	835.5	4
174	0.575	8.0	800.3	4
285	0.41	8.0	836.6	3
417	0.49	8.0	1635.4	5
190	0.62	8.0	944.6	4
132	0.59	8.0	620.9	3
111	0.53	8.0	470.4	3
114	0.43	8.0	391.9	3
94	0.475	8.0	358.1	2
352	0.59	8.0	1663.7	5
165	0.465	8.0	815.1	3
313	0.66	8.0	1653.5	5
25	0.82	8.0	164.0	1
62	0.515	8.0	255.4	2
437	0.49	8.0	1712.9	5
79	0.465	8.0	295.7	2
82	0.695	8.0	456.6	2

APPENDIX C: Special Status Species List

Listed and Special-Status Species Potentially Occurring within the Roseville Bicycle Master Plan Locations or Vicinity

(Study area is defined as the City of Roseville and a 5 mile radius from the City of Roseville City Limits)

Common Name (<i>Scientific Name</i>)	Regulatory Status	Habitat Requirements	Potential for Occurrence
Plants			
Ahart's dwarf rush (<i>Juncus leiospermus</i> var. <i>ahartii</i>)	CNPS 1B	Margins of vernal pools	Low , viable habitat is present within the study area, but there are no known occurrences within the study area.
Big-scale balsamorhiza (<i>Balsamorhiza macrolepis</i> var. <i>macrolepis</i>)	CNPS 1B	Cismontane woodland, and valley and foothill grasslands.	Present , observed within the study area.
Boggs Lake hedge-hyssop (<i>Gratiola heterosepela</i>)	SE, CNPS 1B, SVP	Margins of lakes, vernal pools and ponds and shallow water.	Present , observed within the study area.
Brandegee's clarkia (<i>Clarkia biloba</i> ssp. <i>brandegeae</i>)	CNPS 1B	Chaparral and cismontane woodlands from 965 to 2905 feet above MSL.	No , the elevation range of the study area is below the minimum elevation required by the species.
Dwarf downingia (<i>Downingia pusilla</i>)	CNPS 2, SVP	Vernal pools.	Present , observed within the project vicinity.
Hispid bird's beak (<i>Cordylanthus mollis</i> ssp. <i>hispidus</i>)	CNPS 1B	Meadows and seeps, playas, and akalai areas of valley and foothill grasslands from 3 to 510 feet above MSL.	Low , suitable habitat occurs within the study area, but there are no records of this species within five miles of the study area.
Legenere (<i>Legenere limosa</i>)	CNPS 1B, SVP	Vernal pools, marshes, and wet areas.	Present , observed within the BMP study area..
Pincushion navarretia (<i>Navarretia myersii</i>)	SVP, CNPS 1B	Vernal pools.	High , there is viable vernal pool habitat located within the project study area.
Red Bluff dwarf rush (<i>Juncus leiospermus</i> var. <i>leiospermus</i>)	SVP, CNPS 1B	Vernal pool margins, wet places in chaparral, and woodlands. 50-500 MSL.	High , occurs within the study area and viable habitat occurs within the project vicinity.
Sacramento Orcutt grass (<i>Orcuttia viscida</i>)	FE, SVP	Vernal pools. Less than 100 MSL. Restricted to a region of approximately 135 square miles in eastern Sacramento County	No , the BMP project sites are not located within the range of this species.
Sanford's arrowhead (<i>Sagittaria sanfordii</i>)	FSC, CNPS 1B, SVP	Freshwater emergent wetlands.	Present , observed within the study area.

Common Name (Scientific Name)	Regulatory Status	Habitat Requirements	Potential for Occurrence
Invertebrates			
Conservancy fairy shrimp (<i>Branchinecta conservatio</i>)	FE	Vernal pools and swales, and other seasonally inundated aquatic habitats.	Low , suitable habitat exists in vernal pools within the study area; but there are no records of this species within five miles of the study area.
Valley elderberry longhorn beetle (<i>Desmocerus californicus dimorphus</i>)	FT	Elderberry shrubs (<i>Sambucus mexicana</i>) with a basal diameter of one inch or greater.	Present , suitable elderberry shrubs are known to occur within riparian zones of the study area.
Vernal pool fairy shrimp (<i>Branchinecta lynchi</i>)	FT	Vernal pools and swales, and other seasonally inundated aquatic habitats.	Present , observed within the study area.
Vernal pool tadpole shrimp (<i>Lepidurus packardii</i>)	FE	Vernal pools and swales, and other seasonally inundated aquatic habitats.	Low , although vernal pool habitat exists within the study area, only three known occurrences have been documented within Placer County.
Fish			
Central Valley steelhead (<i>Oncorhynchus mykiss</i>)	FT	Cold water perennial streams with well sorted and well distributed gravel reasonably free of fine sediment. Streams must also have adequate shelter both in and out of water. Require low to moderate gradients with varied habitat types.	Present , known to occur seasonally within accessible portions of the Dry Creek watershed that contain suitable spawning and rearing habitat.
Chinook salmon - Central Valley fall/late fall-run (<i>Oncorhynchus tshawytscha</i>)	SSC	Cold water perennial streams with well sorted and well distributed gravel reasonably free of fine sediment. Streams must also have adequate shelter both in and out of water. Require low to moderate gradients with varied habitat types.	Present , populations have been observed in Secret Ravine, Miners Ravine, Antelope Creek, Linda Creek, and Cirby Creek.
Chinook salmon - Central Valley spring-run (<i>Oncorhynchus tshawytscha</i>)	FT, ST	Cold water perennial streams with well sorted and well distributed gravel reasonably free of fine sediment. Streams must also have adequate shelter both in and out of water. Require low to moderate gradients with varied habitat types.	Low , viable habitat is present within the study area, but there are no known occurrences within the Dry Creek watershed or in accessible reaches of Dry Creek or any of its tributaries.

Common Name (Scientific Name)	Regulatory Status	Habitat Requirements	Potential for Occurrence
Chinook salmon - Central Valley winter-run (<i>Oncorhynchus tshawytscha</i>)	FE, SE	Cold water perennial streams with well sorted and well distributed gravel reasonably free of fine sediment. Streams must also have adequate shelter both in and out of water. Require low to moderate gradients with varied habitat types.	Low , viable habitat is present within the study area, but there are no known occurrences within the watershed or in accessible reaches of Dry Creek or any of its tributaries.
Sacramento splittail (<i>Pogonichthys macrolepidotus</i>)	SSC	Freshwater streams that have temperatures of 19-23° C.	High , viable habitat is present within the study area; there are known occurrences within accessible portions of the Dry Creek watershed that contain suitable spawning and rearing habitat.
Amphibians			
California red-legged frog (<i>Rana aurora draytonii</i>)	FT, SSC	Quiet pools of streams, marshes and occasionally ponds.	Low , viable habitat is present within the study area, but no known populations have been documented.
California tiger salamander (<i>Ambystoma californiense</i>)	FT, SSC	Most commonly found in annual grass habitat, but also occurs in the grassy understory of valley-foothill hardwood habitats. Uncommonly found along stream courses in valley-foothill riparian habitats.	Low , viable habitat occurs within the study area, but the known range for this species is limited to southern Sacramento County. There are no known populations in Placer County.
Western pond turtle (<i>Clemmys marmorata</i>)	SSC	Slow moving water with associated basking sites.	High , suitable habitat exists in and near pertinent aquatic features within the study area.
Western spadefoot toad (<i>Spea hammondi</i>)	SSC, SVP	Inhabits grasslands, and utilizes vernal pools for breeding.	Present , observed within the study area.
Reptiles			
Giant garter snake (<i>Thamnophis gigas</i>)	FT	Primarily associated with marshes and sloughs. Less often associated with slow-moving creeks. Absent from larger rivers.	Low , viable habitat exists within the study area, but no known occurrences have been documented.
Birds			
Bald eagle (<i>Haliaeetus leucocephalus</i>)	MBTA	Large old growth trees located near large bodies of water or free flowing rivers are utilized for nesting.	No , no viable habitat is present on or in the vicinity of the watershed. Current populations are restricted mainly to Butte, Lake, Lassen, Modoc, Plumas, Shasta, Siskiyou, and Trinity counties and some southern California areas.

Common Name (<i>Scientific Name</i>)	Regulatory Status	Habitat Requirements	Potential for Occurrence
Bank swallow (<i>Riparia riparia</i>)	ST, MBTA	Riparian, lacustrine, and coastal areas with vertical banks, bluffs, and cliffs with fine-textured or sandy soils, into which it digs nesting holes.	Low , viable habitat exists within the study area, however, no known populations have been documented.
California black rail	ST	Large areas of thick emergent, perennial wetland vegetation.	Low , though wetlands are present within the study area, it is unlikely that adequate habitat is present. There are no known populations within the vicinity of the study area.
California thrasher (<i>Toxostoma redivivum</i>)	MBTA	Montane chaparral with adjacent oak woodlands and pine juniper scrub. Occasionally found in parks and gardens.	Low , though there is viable habitat within the study area, there are no known occurrences within the study area.
Cooper's hawk (<i>Accipiter cooperii</i>)	SSC, MBTA	Dense stands of live oak, riparian deciduous or other forest habitats.	Present , observed within the study area.
Double crested Cormorant <i>Phalacrocorax auritus</i>	SSC, MBTA	Ponds, lakes, rivers, lagoons, estuaries, and open coastline.	Low , suitable habitat occurs within the perennial aquatic features in the study area.
Ferruginous hawk (<i>Buteo regalis</i>)	MBTA	Open grasslands, sagebrush flats, desert scrub, low foothills, and riparian habitat. Prefers lone trees in open grass/cropland for nesting. This is a migratory species that winters in the Central Valley.	Low , viable habitat exists within the study area; however, no known populations have been documented.
Golden eagle (<i>Aquila chrysaetos</i>)	SSC, MTBA	Patchy distribution in California as a resident or migrant. Typical habitat includes rolling foothills, mountain areas, sage-juniper flats, and desert.	Low , though viable habitat exists within the study area, there are no known nests in the vicinity of the study area.
Great blue heron (<i>Ardea herodias</i>)	MBTA	Common in shallow estuaries and fresh and saline emergent wetlands. Less common along riverine and rocky marine shores, in croplands, pastures, and in mountains above foothills. Common from July to October in salt ponds where fish are numerous.	Present , observed within the study area.

Common Name (Scientific Name)	Regulatory Status	Habitat Requirements	Potential for Occurrence
Great egret (<i>Ardea alba</i>)	MBTA	Feeds and rests in fresh and saline emergent wetlands, along the margins of estuaries, lakes, and slow-moving streams, on mudflats and salt ponds, and in irrigated croplands and pastures. Nests in large trees, and roosts in trees.	Present , observed within the study area.
Greater sandhill crane (<i>Grus canadensis sp. tabida</i>)	ST, MBTA	Sandhill cranes breed in the northeastern plateau of California and winter in southern California and the Central Valley. They migrate through the Sacramento and San Joaquin valleys. Migrating habitat includes shallow lacustrine, and fresh emergent habitats along with in and near wet meadows.	Low , There are patches of viable migration habitat, but there are no known occurrences of this species in the vicinity of the study area.
Northern harrier (<i>Circus cyaneus</i>)	SSC, MBTA	Fresh and saltwater wetlands, coastal dunes, grasslands, deserts, meadows, and cropland.	Present , observed within the study.
Long eared owl (<i>Asio otus</i>)	SSC, MBTA	Nests in woodlands and forested areas. May also forage in riparian areas, live oak thickets and other dense stands of trees. Uncommon in California.	Low , viable habitat is present onsite but there are no known occurrences in the vicinity of the study area.
Lark sparrow (<i>Chondestes grammacus</i>)	SSC (nesting only), MBTA	Sparse valley foothill hardwood, valley foothill hardwood-conifer, open mixed chaparral and similar brushy habitats and grasslands with scattered trees or shrubs.	Present , known to occur within the study area.
Lawrence's goldfinch (<i>Carduelis lawrencei</i>)	MBTA	Habitats include valley foothill hardwood, valley foothill hardwood-conifer, and nearby herbaceous habitats, which are often used for feeding.	No , no viable habitat occurs within the study area and no known populations have been documented in the vicinity of the watershed.
Lewis' woodpecker (<i>Melanerpes lewis</i>)	MBTA	Open oak savannahs, broken deciduous and coniferous habitats.	Low , though viable habitat is found within the study area, there are no known populations documented.

Common Name (Scientific Name)	Regulatory Status	Habitat Requirements	Potential for Occurrence
Little willow flycatcher (<i>Empidonax traillii brewsteri</i>)	SE, MBTA	Resides in wet meadow and montane riparian habitats in the Sierra Nevada and Cascade Range between 600-2500 meters during the summer. Occurs most often in open river valleys or large mountain meadows. Often migrates to lower elevations in spring and fall, where it resides in riparian habitats.	Low , viable habitat exists within the study area; however, no known occurrences have been documented in the watershed.
Loggerhead shrike (<i>Lanius ludovicianus</i>)	SSC, MBTA	Open habitat with scattered shrubs, trees, posts, fences, utility lines or other perches. Open-canopied valley foothill hardwood, valley foothill hardwood-conifer, valley foothill riparian, pinyon-juniper, juniper, desert riparian, and Joshua tree habitats.	Present , observed within the study area.
Long-billed curlew (<i>Numenius americanus</i>)	SSC, MBTA	Coastal estuaries, salt marsh, pastures, mixed and short grass prairies, and wet meadows.	Low , little viable habitat occurs within the study area, and there have been no known populations documented in the study area.
Merlin (<i>Falco columbarius</i>)	SSC, MBTA	Coastlines, open grasslands, savannahs, woodlands, lakes, wetlands, edges, and early successional stages. Seldom found in heavily wooded areas or open deserts.	Low , viable habitat occurs onsite, but the species is most common in the western portion of the state and has no occurrences in the vicinity of the study area.
Nuttall's woodpecker (<i>Picoides nuttallii</i>)	MBTA	Low-elevation riparian, deciduous and oak habitats.	Present , known to occur within the within the study area.
Oak titmouse (<i>Baeolophus inornatus</i>)	MBTA	Oak and pine-oak woodlands and riparian habitat.	Present , observed within the study area and commonly found in the region.
Purple martin (<i>Progne subis</i>)	SSC, MBTA	Wooded, low elevation habitats including valley and montane hardwood, valley foothill and montane hardwood conifer, and riparian habitats.	Low , viable habitat is present onsite but there are no known occurrences in the vicinity of the study area.
Sharp-shinned hawk (<i>Accipiter striatus</i>)	SSC, MBTA	Ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffery pine habitats.	Present , observed within the study area.
Short eared owl (<i>Asio flammeus</i>)	SSC, MBTA	Open areas with few trees such as annual and perennial grasslands, prairies, dunes, meadows, irrigated lands, and saline and fresh emergent wetlands.	Low , viable habitat is onsite, but there are no known occurrences in the vicinity of the study area.

Common Name (Scientific Name)	Regulatory Status	Habitat Requirements	Potential for Occurrence
Swainson's hawk (<i>Buteo swainsoni</i>)	ST (nesting), MBTA	Nests in isolated trees or riparian woodlands adjacent to suitable foraging habitat, such as grasslands.	Present , observed within the study area. May also nest within the study area.
Tricolored blackbird (<i>Agelaius tricolor</i>)	SSC, MBTA	Nests in emergent vegetation and forages in cropland.	Low , some viable habitat exists within the study area boundaries, but no known populations have been documented in the vicinity of the study area.
Western burrowing owl (<i>Athene cunicularia hypugaea</i>)	SSC, MBTA	Open grassland, prairie and savanna.	Present , observed within the study area.
Western yellow-billed cuckoo (<i>Coccyzus americanus occidentals</i>)	FC, MBTA	Riparian corridors.	Low , suitable habitat for this species exists in the riparian corridors within the study area, but there are no records of the species within five miles of the study area.
White-faced ibis (<i>Plegadis chihi</i>)	SSC, MBTA	Fresh emergent wetland, shallow lacustrine waters, and muddy ground of wet meadows and irrigated, or flooded, pastures and croplands. Nests in dense, fresh emergent wetland.	Low , viable habitat for this species occurs within the study area, but to date no known populations have been documented in the vicinity of the study area.
White-tailed kite (<i>Elanus leucurus</i>)	MBTA	Woodland and grasslands.	Present , observed within the study area.
Yellow breasted chat (<i>Icteria virens</i>)	SSC, MBTA	Valley foothill riparian up to 4,800 feet MSL.	Low , viable habitat is present on site but there are no known occurrences in the vicinity of the study area.
Yellow warbler (<i>Dendroica petechia</i>)	SSC, MBTA	Breeding: ponderosa pine to subalpine conifer, and pinyon-juniper habitats in major mountain ranges throughout the state. Resident: woodlands, chaparral, residential areas, and grasslands or agricultural areas bordered by trees or shrubs.	Present , known to occur within study area.
Mammals			
Pallid bat (<i>Antrozous pallidus</i>)	SSC	Grasslands, shrublands, and woodlands.	Present , observed within the study area.
Ringtail (<i>Bassariscus astutus</i>)	SFP	Various riparian habitats and brush stands of most forest and shrub habitats at middle to low elevations.	Low , viable habitat onsite but no known occurrences in the vicinity of the study area.

Common Name (<i>Scientific Name</i>)	Regulatory Status	Habitat Requirements	Potential for Occurrence
Spotted bat (<i>Euderma maculatum</i>)	SSC	Prefers rock crevices for roosting habitat. Little is known about their habitat because they are so rare, but their apparent habitat pattern shows a preference for sites with adequate roosting habitat, such as cliffs. They feed over water and along washes, moving from forest to lowlands in autumn.	Low , it is very unlikely that any patches of viable habitat are located within the study area. Furthermore no known occurrences have been documented in the vicinity of the study area.
Townsend's big eared bat	SSC	Found in all but alpine and subalpine habitats. Requires caves, mines, tunnels, buildings, or other human made structures for roosting.	Low , viable habitat present onsite but no known occurrences in the vicinity of the study area.
<p>Key to Abbreviations: FE = Federally Endangered FT = Federally Threatened FC= Federal Candidate for listing SSC = State Species of Special Concern SLC= Species of local concern SE = State Endangered ST = State Threatened SR = State Rare CSC = California Species of Special Concern SVP= California Department of Fish and Game Sensitive Vernal Pool Taxa CNPS = California Native Plant Society listing MBTA = Birds protected by the Migratory Bird Treaty Act SFP= State fully protected.</p> <p><i>Source: Foothill Associates</i></p>			

APPENDIX D: Mitigation Monitoring Plan

Mitigation Monitoring Program for the Bicycle Master Plan Update

This Mitigation Monitoring Program is prepared pursuant to the California Environmental Quality Act and includes: A summary list of the mitigation measures and the full text of each mitigation measure followed by monitoring details, including agency responsible for implementation, timing, and standards of success.

Summary List of Mitigation Measures

- AQ-1: Construction Emissions Control Measures.
- B-1: Survey for Wetlands.
- B-2: Survey for Riparian Habitat and Special-status Plant Species.
- B-3: Preliminary Survey for Special-status Animal Species.
- B-4: Pre-construction Survey for Swainson's Hawk.
- B-5: Pre-construction Survey for Other Raptors.
- B-6: Pre-construction Survey for Western Burrowing Owls.
- B-7: Pre-construction Survey for Migratory Birds.
- B-8: Pre-construction Survey for Western Pond Turtle, Western Spadefoot Toad and Pallid Bat.
- CR-1: Cultural Resources Investigation.
- CR-2: Work stoppage and notification.
- HA-1: Site Assessments for Hazardous Materials.
- HA-2: Clearing of Flammable Materials.
- HA-3: Use of Spark Arresters.
- HY-1: Hydraulic Analysis.
- HY-2: Flood Impact Avoidance Measures.
- LU-1: Agency consultation.
- T-1: Parking Study for Class II Bike Lanes.

Full Text of Mitigation Measures with Monitoring Details

Mitigation Measure AQ-1: Construction Emissions Control Measures.

When two or more major bikeway projects (as defined in the discussion of bike project emissions) are planned for construction during the same construction season, the projects shall implement the following measures to reduce construction emissions to the extent feasible. Dust control measures must be implemented for all projects in accordance with the City of Roseville Grading Ordinance, and the APCD Fugitive Dust Rule 228.

1. The applicant shall submit to the District a Construction Emission/Dust Control Plan within thirty (30) days prior to groundbreaking. If the District does not respond within twenty (20) days, the plan shall be considered approved. The plan must address the minimum requirements found in section 300 and 400 of District Rule 228, Fugitive Dust (www.placer.ca.gov/airpollution/airpolut.htm). The applicant shall keep a hard or electronic copy of Rule 228, Fugitive Dust on-site for reference.
2. The Construction Emission/Dust Control Plan shall include a comprehensive inventory (i.e. make, model, year, emission rating) of all heavy-duty off-road equipment (50 horsepower or greater) that will be used an aggregate of 40 or more hours for the construction project. The project representative shall provide the District with the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman. The plan shall demonstrate that the heavy-duty (> 50 horsepower) off-road vehicles to be used in the construction project, including owned, leased and subcontractor vehicles, will achieve a project wide fleet-average 20 percent NOx reduction and 45 percent particulate reduction compared to the most recent CARB fleet average. The District should be contacted for average fleet emission data. Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available. Contractors can access the Sacramento Metropolitan Air Quality Management District's web site to determine if their off-road fleet meets the requirements listed in this measure. http://www.airquality.org/ceqa/Construction_Mitigation_Calculator.xls
3. Clean earth moving construction equipment with water, or sweep clean, once per day, or as necessary (e.g., when moving onsite), consistent with NPDES BMP's, local ordinances and municipal codes. Water shall be applied to control dust as needed to prevent dust impacts offsite. Operational water truck(s), shall be onsite, as required, to control fugitive dust. Construction vehicles leaving the site shall be cleaned, as needed, to prevent dust, silt, mud, and dirt from being released or tracked off-site.
4. Spread soil binders on unpaved roads and employee/equipment parking areas. Soil binders shall be non-toxic in accordance with state and local regulations. Apply approved chemical soil stabilizers, or vegetated mats, etc. according to manufacturer's specifications, to all-inactive construction areas (previously graded areas which remain inactive for 96 hours).
5. Minimize diesel idling time to a maximum of 10 minutes.
6. Use California Air Resources Board (CARB) low-sulfur diesel fuel.
7. Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary diesel power generators, if feasible.

Party Responsible for Mitigation:	Public Works Department, Project Contractor
Monitoring Agency:	Placer County Air Pollution Control District
Implementation:	City to incorporate mitigation measure into project Plans, Specification and Estimates. Contractor to implement prior to and during construction.
Standards of Success:	Implementation of required emissions and dust control measures

Mitigation Measure B-1: Survey for Wetlands.

During the preliminary engineering and environmental review phase of each Class I or Class II bikeway project that involves work within open space or undeveloped property or may otherwise disturb wetlands, including vernal pools, a survey for wetlands shall be conducted by a qualified biologist in accordance with the following:

1. A wetland delineation shall be prepared in accordance with the requirements of the Clean Water Act and U.S. Army Corps of Engineers.
2. If no wetlands are documented during the survey, no further mitigation or agency consultation is required.
3. If wetlands are identified within the project area, the City shall as feasible avoid impacts to the resource.
4. If feasible avoidance measures do not eliminate the impact to wetlands, the City shall prior to construction consult with and obtain required approvals from the U.S. Army Corps of Engineers per the Clean Water Act. The typical approval process includes:
 - a. Corps verification of the wetland delineation.
 - b. Corps approval of a permit (either Nationwide or Individual), including a mitigation plan for “no net less” of wetlands.
 - c. Regional Water Quality Control Board approval of Water Quality Certification
 - d. If vernal pools are affected, consultation with the U.S. Fish and Wildlife Service to determine appropriate mitigation.
 - e. Consultation with California Department of Fish and Game to determine whether or not the project requires a Streambed Alteration Agreement.

Party Responsible for Mitigation:	Public Works Department
Monitoring Agency:	Public Works Department, U.S. Army Corps of Engineers, Regional Water Quality Control Board
Implementation:	Survey prior to project environmental review and engineering, permit approvals prior to construction
Standards of Success:	Complete survey, implement feasible avoidance measures and meet the requirements of all applicable permits

Mitigation Measure B-2: Survey for Riparian Habitat and Special-status Plant Species.

During the preliminary engineering and environmental review phase of each Class I or Class II bikeway project that involves work along a stream corridor or within open space or undeveloped property or may otherwise disturb special-status plant species, a survey for special-status plants shall be conducted by a qualified botanist in accordance with the following:

1. If no riparian habitat or special-status plants are documented during the survey, no further mitigation or agency consultation is required.
2. If riparian habitat or special-status plants are identified within the project area, the City shall as feasible avoid impacts to the resource.
3. If feasible avoidance measures do not eliminate the impact to special-status plant species, the City shall consult with and obtain approvals from the applicable regulatory agency (National Marine Fisheries Service for riparian habitat along Dry Creek and its tributaries, U.S. Fish and Wildlife Service for all federally-listed plants, and California Department of Fish and Game for state-listed plants and riparian habitat) to determine appropriate measures for further protection or mitigation of the impact.
4. If construction activities are proposed within 20 feet of the dripline of *Sambucus mexicana*, host of the Valley elderberry longhorn beetle, the City shall initiate formal consultation with the U.S. Fish and Wildlife Service to determine appropriate mitigation. Mitigation measures may include conservation measures (protective fencing) and compensation.
5. If construction activities are proposed between 20 and 100 feet from the dripline of *Sambucus mexicana*, host of the Valley elderberry longhorn beetle, the City shall initiate informal consultation with the U.S. Fish and Wildlife Service to determine appropriate mitigation. Mitigation may include conservation measures (protective fencing) to create a 20-foot buffer around the dripline.
6. If construction activities will impact riparian habitat under jurisdiction of the Department of Fish and Game or within the ordinary high water mark of a creek, the City shall obtain a Streambed Alteration Agreement as required by the California Department of Fish and Game, and implement any required mitigation.

**Party Responsible
for Mitigation:**

Public Works Department

Monitoring Agency:

Public Works Department, U.S. Fish and Wildlife Service,
California Department of Fish and Game

Implementation:

Survey prior to project environmental review and
engineering, permit approvals prior to construction

Standards of Success:

Complete survey, implement feasible trail design
modifications and meet the requirements of all applicable
permits

Mitigation Measure B–3: Preliminary Survey for Special-status Animal Species.

During the preliminary engineering and environmental review phase of each Class I or Class II bikeway project that involves work within open space or undeveloped property or may otherwise disturb special-status animal species, a survey for the presence of and/or suitability of habitat to support special-status animal species shall be conducted by a qualified biologist in accordance with the following:

8. If no special-status animals are documented during the survey and the survey concludes that suitable habitat for special-status animal species is not present, then no further mitigation or agency consultation is required.
9. If special-status animals are documented during the survey or the survey concludes that suitable habitat for special-status animal species is present, the City shall as feasible design the trail to minimize or avoid impacts to the habitat of the special-status animal(s), including any existing burrows of western burrowing owls. In addition, the City shall conduct pre-construction survey(s) as applicable for the documented species per Mitigation Measures B-4 through B-8.
10. If the survey determines that the project would impact annual grasslands suitable as Swainson's hawk foraging habitat, the City shall consult with California Department of Fish and Game to determine if any mitigation is required.

Party Responsible

for Mitigation: Public Works Department

Monitoring Agency: Public Works Department, California Department of Fish and Game

Implementation: Survey prior to project environmental review and engineering, permit approvals prior to construction

Standards of Success: Complete survey, implement feasible trail design modifications and/or meet the requirements of all applicable permits

Mitigation Measure B–4: Pre-construction Survey for Swainson's Hawk.

If project construction is proposed during the breeding season (March-August), a survey shall be conducted to identify active Swainson's Hawk nests. The survey shall be conducted by a qualified biologist no more than 30 days prior to the onset of construction in all suitable and appropriate habitats within ¼-mile of the project area. Depending on the results of the survey, the following actions may be taken:

1. If no active nests are identified, no further mitigation is required.
2. If an active Swainson's hawk nest(s) is identified, the City shall consult with the California Department of Fish and Game to determine appropriate actions such that construction activities do not result in nest abandonment or forced fledging. Actions may include establishing a buffer zone around the active nest or, if the tree containing the Swainson's hawk nest is proposed for removal, delaying removal of the tree until the young have fledged.

Party Responsible for Mitigation:	Public Works Department
Monitoring Agency:	Public Works Department, California Department of Fish and Game
Implementation:	Prior to construction
Standards of Success:	Complete survey and implement any required avoidance measures

Mitigation Measure B-5: Pre-construction Survey for Other Raptors.

If project construction is proposed during the raptor breeding season (March-August), a survey shall be conducted to identify active raptor nests. The survey shall be conducted by a qualified biologist no more than 30 days prior to the onset of construction in all suitable and appropriate habitats within 350 feet of the project area. Depending on the results of the survey, the following actions may be taken:

1. If no active nests are identified, no further mitigation is required.
2. If an active raptor nest (other than Swainson’s hawk) is identified, the City shall either establish a 350-foot buffer around the nest and avoid removal of any tree with an active raptor nest until the young have fledged, or consult with the California Department of Fish and Game to determine other appropriate actions.

Party Responsible for Mitigation:	Public Works Department
Monitoring Agency:	Public Works Department, California Department of Fish and Game
Implementation:	Prior to construction
Standards of Success:	Complete survey and implement any required avoidance measures

Mitigation Measure B-6: Pre-construction Survey for Western Burrowing Owls.

If project construction is proposed within 250 feet of potential burrowing owl habitat, a survey shall be conducted to record western burrowing owl activity. The survey shall be conducted by a qualified biologist no more than 30 days prior to the onset of construction. Depending on the results of the survey, the following actions may be taken:

1. If no sign of owl activity is found, no further mitigation is required.
2. If western burrowing owls are nesting in the project area or within 250 feet of the project area, the City shall consult with the California Department of Fish and Game to determine appropriate mitigation. The nests shall be avoided by establishment of a buffer zone of up to 250 feet around the nest or as recommended by CDFG. During non-breeding season, passive relocation of owls may be considered. Additional

mitigation may include creation of artificial burrows for displaced owls, and compensation for loss of occupied foraging and burrow habitat.

Party Responsible

for Mitigation: Public Works Department

Monitoring Agency: Public Works Department, California Department of Fish and Game

Implementation: Prior to construction

Standards of Success: Complete survey and implement any required avoidance measures

Mitigation Measure B-7: Pre-construction Survey for Migratory Birds.

If project construction is proposed during the breeding season (February-August), a survey shall be conducted within 100 feet of the construction area to identify active nests of birds protected under the Migratory Bird Treaty Act. The survey shall be conducted by a qualified biologist no more than 30 days prior to the onset of construction. Depending on the results of the survey, the following actions may be taken:

1. If no active nests are identified, no further mitigation is required.
2. If an active nest is identified, the City shall establish a 100-foot buffer around the nest and avoid removal of any tree with an active nest until the young have fledged.

Party Responsible

for Mitigation: Public Works Department

Monitoring Agency: Public Works Department

Implementation: Prior to construction

Standards of Success: Complete survey and implement any required avoidance measures

Mitigation Measure B-8: Pre-construction Survey for Western Pond Turtle, Western Spadefoot Toad and Pallid Bat.

If project construction has the potential to impact habitat for western pond turtle, western spadefoot toad and/or pallid bat, a survey shall be conducted by a qualified biologist no more than 30 days prior to the onset of construction. Depending on the results of the survey, the following actions may be taken:

1. If no sign of western pond turtle, western spadefoot toad and/or pallid bat is found, no further mitigation is required.
2. If western pond turtle, western spadefoot toad and/or pallid bat are identified, the City shall consult with the California Department of Fish and Game to determine appropriate mitigation, which may include:
 - a. .Moving northwest pond turtle(s) to a suitable aquatic habitat outside the

- construction area.
- b. Avoiding active northwest pond turtle nests (containing either hatchlings or eggs) by establishing a buffer around the nest until hatchlings leave the nest.
- c. Compliance with mitigation requirements for vernal pools (which provide aquatic breeding habitat for the western spadefoot toad) per Mitigation Measure B-1: Survey for Wetlands, including avoidance of vernal pools through the establishment of a buffer.
- d. Avoidance of structures serving as a roost for pallid bats until young have left the roost.

Party Responsible

for Mitigation: Public Works Department

Monitoring Agency: Public Works Department, California Department of Fish and Game

Implementation: Prior to construction

Standards of Success: Complete survey and implement any required avoidance measures

Mitigation Measure CR-1: Cultural Resources Investigation.

For each Class I bike trail project within open space and Class II bike lane projects involving roadway widening adjacent to open space, the City shall conduct a Cultural Resources Investigation as follows:

1. City staff shall review prior cultural resource inventories, if any, for the project area.
2. If current (completed no more than 10 years before the anticipated beginning of construction) cultural resource inventory(ies) indicates that there are no known cultural resources present within the project area, then no further investigation is necessary.
3. If there is no prior cultural resources inventory for the project area or if the most recent cultural resources inventory was completed more than 10 years before the anticipated beginning of construction, the City shall hire a qualified cultural resources specialist for further investigation as follows:
 - a. Conduct a record search for previously identified cultural resources and previously conducted cultural resources investigations for the project area. The record search shall include contacts with: The appropriate information center of the California Historical Resources Information System; the Native American Heritage Commission (NAHC) for a Sacred Lands File Check and a list of appropriate Native American contacts in the local area; and representatives of local Native American Groups.
 - b. If determined necessary by the records search, conduct an on-site cultural resources survey.
 - c. Prepare a report with findings and recommended mitigation measures prepared, as necessary, in consultation with the City, the State Historic Preservation Office and the NAHC
4. If the cultural resources inventory for a project finds that cultural resources are present within the project area, the City shall, if feasible, design the path to avoid the cultural resource. If it is not feasible to avoid the cultural resource, the City shall

follow the recommendations of the cultural resources inventory and/or a qualified cultural resources specialist to provide recommendations for disposition of the cultural resource.

- Party Responsible for Mitigation:** Public Works Department
- Monitoring Agency:** Public Works Department
- Implementation:** Prior to project environmental review and engineering
- Standards of Success:** Complete cultural resources inventory and implementation of any resultant mitigation.

Mitigation Measure CR-2: Work stoppage and notification.

If evidence of cultural resources such as chipped or ground stone, historic debris, building foundations or human bone is discovered during ground-disturbing construction activities, the contractor shall immediately halt work within 100 feet of the find and notify the Roseville Community Development Department. A qualified cultural resources specialist shall assess the significance of the find and if necessary develop mitigation/treatment measures in consultation with appropriate agencies.

- Party Responsible for Mitigation:** Public Works Department, Project Contractor
- Monitoring Agency:** Placer County Air Pollution Control District
- Implementation:** City to incorporate mitigation measure into project Plans, Specification and Estimates. Contractor to implement prior to and during construction.
- Standards of Success:** Notification to contractor of requirements of the mitigation measure and if cultural resources are found, implementation of mitigation.

Mitigation Measure HA-1: Site Assessments for Hazardous Materials.

During the environmental review, engineering and/or right-of-way phase for each Class I bikeway project and for those Class II bikeway projects involving roadway widening, the City shall conduct site assessment(s) for hazardous materials as follows:

- a) City staff shall review any existing and available Preliminary Site Assessments for the property and the list of hazardous materials sites maintained by the Fire Department. City staff shall also visually inspect the site for evidence of hazardous materials or nearby land uses which may indicate the use or disposal of hazardous materials.
- b) If the site is located on a hazardous material site list and is unremediated or if visual evidence or prior preliminary assessments indicate that hazardous materials may be present on the site, the City shall retain a qualified consultant to further evaluate the potential for hazardous material releases.

- c) If the site assessment(s) determine that the bikeway project is likely to result in a release of hazardous materials, the City shall either re-design the project to avoid the impact or prepare and implement a remediation plan in accordance with local, state and federal standards.

Party Responsible

for Mitigation: Public Works Department, Project Contractor

Monitoring Agency: Public Works Department

Implementation: City to incorporate mitigation measure into project Plans, Specification and Estimates. Contractor to implement prior to and during construction.

Standards of Success: All on-site hazardous materials associated with construction are handled, stored and/or transported in accordance with applicable regulations.

Mitigation Measure HA-2: Clearing of Flammable Materials.

If dry vegetation or other fire fuels exist on or near staging areas, welding areas, or any other area on which equipment will be operated, contractors shall clear the immediate area of fire fuel prior to construction. To the extent feasible, areas subject to construction activities will be maintained free of fire fuel and debris during the course of construction. To avoid impacts to natural resources, areas to be cleared shall be identified with the assistance of a qualified biologist.

Party Responsible

for Mitigation: Public Works Department, Project Contractor

Monitoring Agency: Public Works Department

Implementation: City to incorporate mitigation measure into project Plans, Specification and Estimates. Contractor to implement prior to and during construction.

Standards of Success: Construction site is cleared of potential fire fuel in accordance with the mitigation measure.

Mitigation Measure HA-3: Use of Spark Arresters.

Contractors shall ensure that vehicles and all equipment (heavy equipment and hand-held equipment) that typically include a spark arrester are equipped with a spark arrester in good working condition during the duration of construction.

Party Responsible

for Mitigation: Public Works Department, Project Contractor

Monitoring Agency: Public Works Department

Implementation: City to incorporate mitigation measure into project Plans, Specification and Estimates. Contractor to implement during construction.

Standards of Success: All construction equipment is outfitted with spark arresters as appropriate.

Mitigation Measure HY-1: Hydraulic Analysis.

Conduct a site specific hydraulic analysis for Class I and II bikeways proposed in areas of high flood risk or erosion potential, and incorporate necessary changes to ensure that the final design minimizes stormwater runoff and water quality impacts. For individual bikeway projects in areas where the risk of flooding or erosion potential is high, the City shall obtain a site-specific hydraulic analysis of the proposed bikeway design to evaluate the effects of the bikeway on flooding and water quality. If results of the analysis indicated that adverse effects would be substantial, changes to the bikeway design that would reduce those effects shall be recommended and where feasible, implemented.

Party Responsible for Mitigation: Public Works Department

Monitoring Agency: Public Works Department

Implementation: Prior to or during project environmental review and engineering

Standards of Success: Avoid and/or minimize the adverse affects of bikeways on flooding and water quality.

Mitigation Measure HY-2: Flood Impact Avoidance Measures.

Design and locate bikeways structures in 100-year floodplain areas so that no substantial increase in water surface elevation results from installation of such features. The City shall ensure that the structures associated with Class I bikeways, along with all other features associated with uses in parks and open space areas in the 100-year floodplain, are designed and located so that such features do not obstruct flood flows, create a public safety hazard, or result in any increase in water surface elevations onsite or downstream. Fences shall be sized, placed, and securely anchored to minimize the potential for floodwaters to flow toward unprotected areas or areas outside of the floodplain. Railings shall be designed to rotate parallel to stream flow during periods of elevated flows to minimize the potential for obstruction of flood flows. During the design phase for projects in flood-prone areas, hydrologic modeling shall be conducted to demonstrate that water surface elevations would not increase substantially following construction.

Party Responsible for Mitigation: Public Works Department

Monitoring Agency: Public Works Department

Implementation: Prior to or during project environmental review and engineering

Standards of Success: Avoid and/or minimize the adverse affects of bikeways on flooding and water quality.

Mitigation Measure LU-1: Agency consultation.

If a Class I bike path is proposed to be located within an area where such use is not currently allowed by an Operations and Management Plan or similar approved plan by a local, state, or federal agency, the City shall consult with the appropriate regulatory agency and follow all required agency measures to avoid, minimize, and/or mitigate for any bike path impacts to environmental resources.

Party Responsible for Mitigation: Public Works Department

Monitoring Agency: Parks and Recreation Department, U. S. Army Corps of Engineers

Implementation: Prior to construction

Standards of Success: Letter of approval and/or revised Operations and Management Plan from regulatory agency.

Mitigation Measure T-1: Parking Study for Class II Bike Lanes.

Capital Improvement Projects involving the installation of Class II bike lanes on existing roadways where existing on-street parking may be removed shall include a feasibility study to determine the affect upon on-street parking. The feasibility study may include engineering plans, parking studies, and measures to avoid or minimize the affect upon the roadway and surrounding neighborhoods/businesses.

Party Responsible for Mitigation: Public Works Department

Monitoring Agency: Public Works Department

Implementation: Prior to environmental review and final engineering

Standards of Success: Inform neighboring property owners/businesses of the potential to affect on street parking and avoid significant adverse affects related to loss of on-street parking